

KIC 003648000

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
003648000-01	OBS	No	0.542462	132.038973	18.1	3.869	8.0	8.8	0.62	4321	0.28	981.28
003648000-02	OBS	No	29.738031	139.540294	2437.5	1.344	13.6	11.6	0.62	4321	3.41	4.71
003648000-03	OBS	No	14.128733	131.601366	1439.6	1.631	12.7	7.6	0.62	4321	2.63	12.71
003648000-04	OBS	No	16.221431	138.973408	1594.2	0.577	11.9	8.0	0.62	4321	2.58	10.57
003648000-06	OBS	No	23.662131	145.945372	939.3	1.500	12.0	-1.0	0.62	4321	1.84	6.39

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003648000-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_FEW_DIFFS
003648000-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—CENT_UNCERTAIN—HALO_GHOST
003648000-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_MEAS
003648000-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—CENT_FEW_DIFFS
003648000-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_NOFITS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

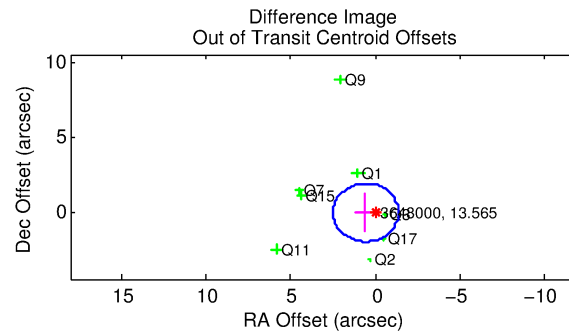
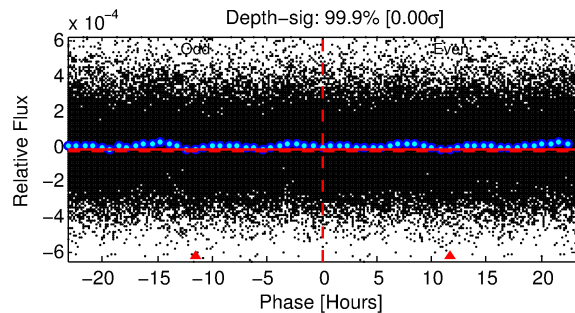
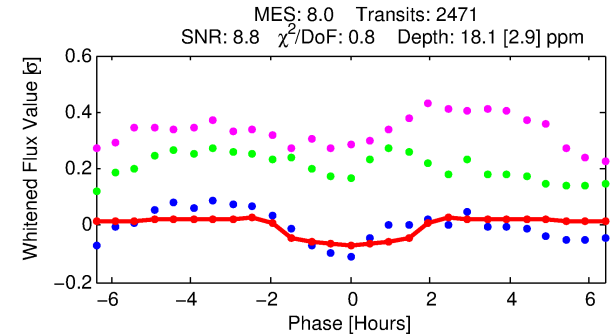
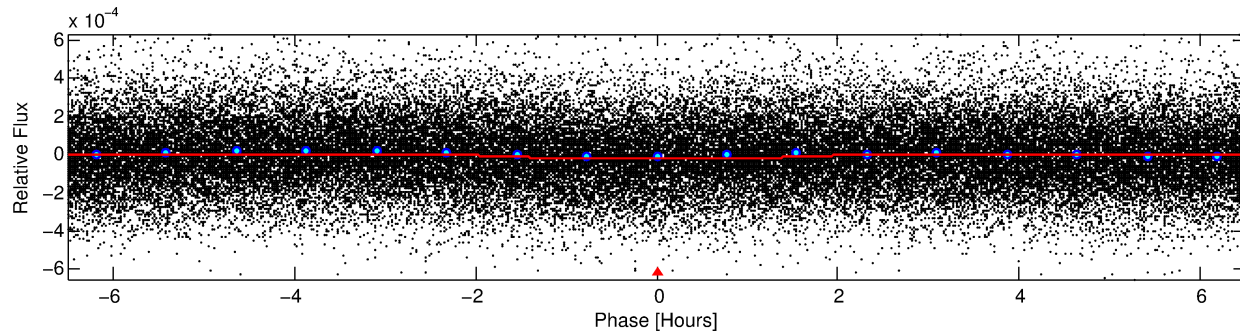
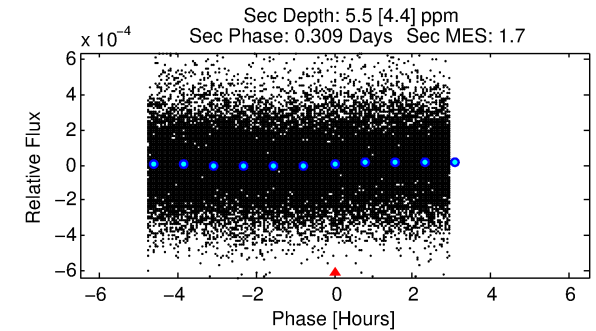
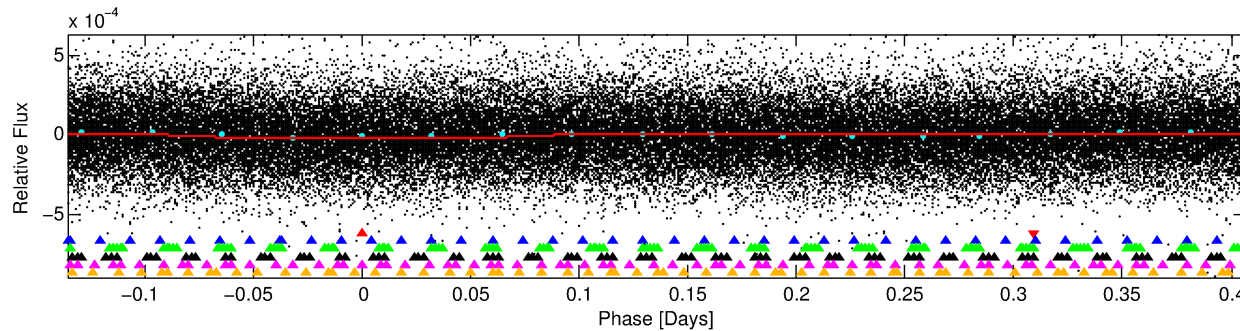
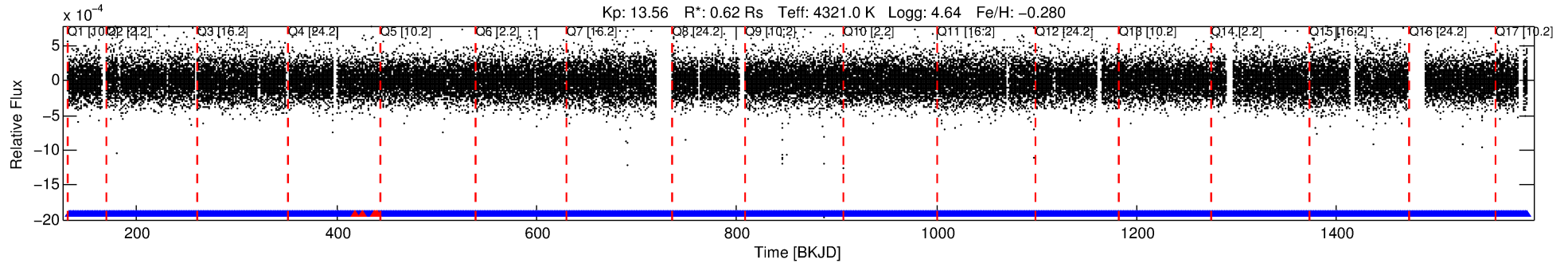
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003648000-01

No Significant Match Found

DV One-Page Summary

KIC: 3648000 Candidate: 1 of 6 Period: 0.542 d



DV Fit Results:

Period = 0.54246 [0.00001] d
Epoch = 132.0390 [0.0041] BKJD
Rp/R* = 0.0042 [0.0024]
a/R* = 1.13 [0.50]
b = 0.72 [1.43]
Seff = 981.28 [153.35]
Teq = 1427 [56] K
Rp = 0.28 [0.17] Re
a = 0.0110 [0.0008] AU
Ag = 4.60 [6.49] [0.55σ]
Teffp = 3231 [1142] K [1.58σ]

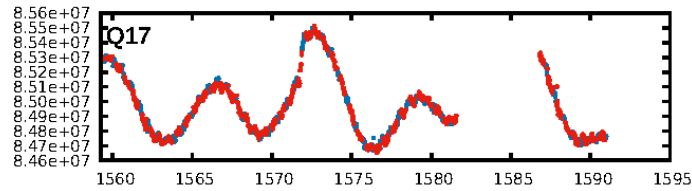
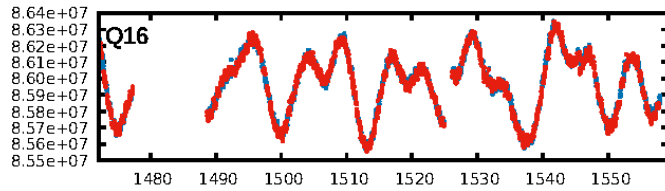
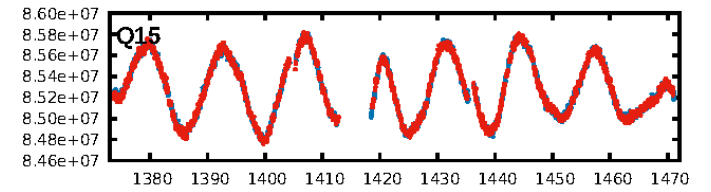
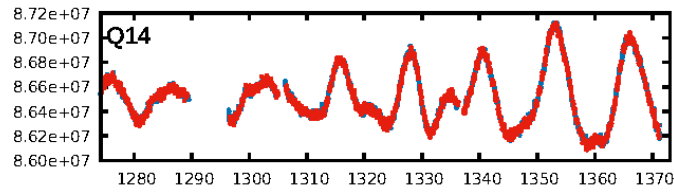
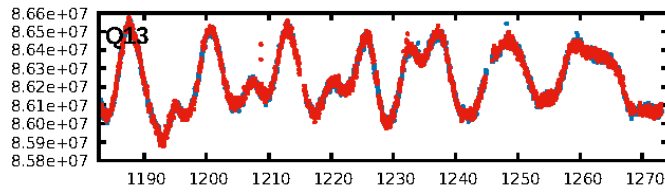
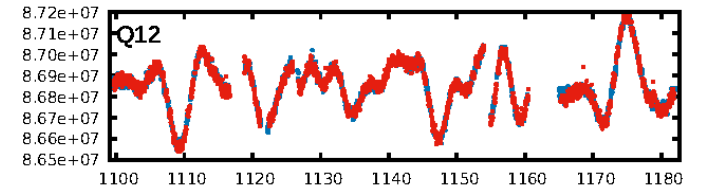
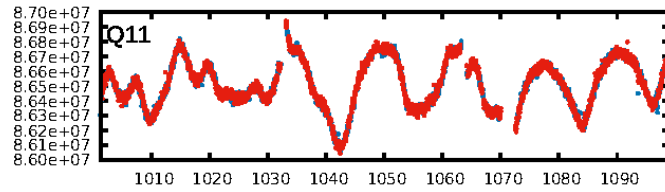
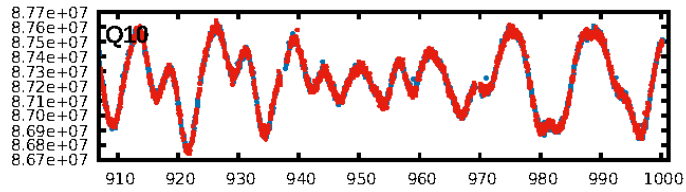
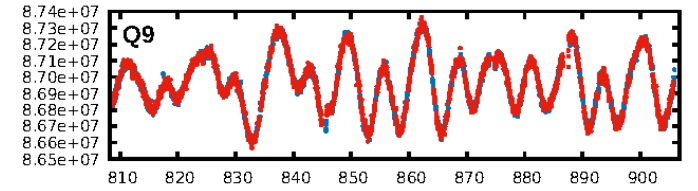
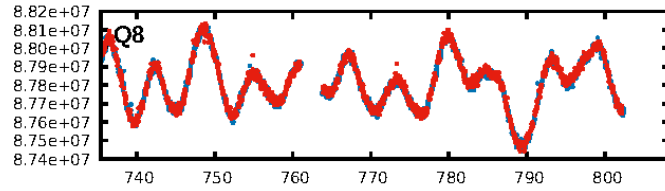
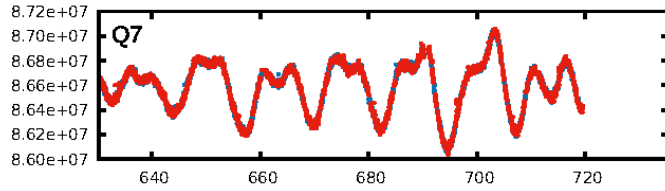
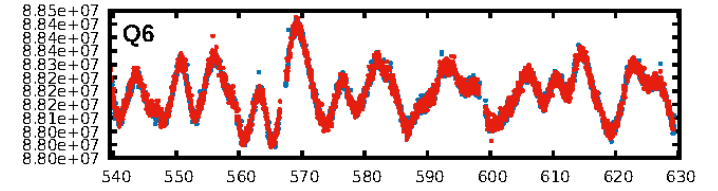
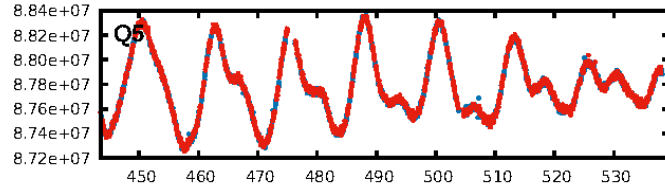
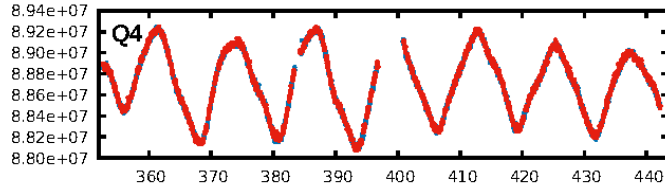
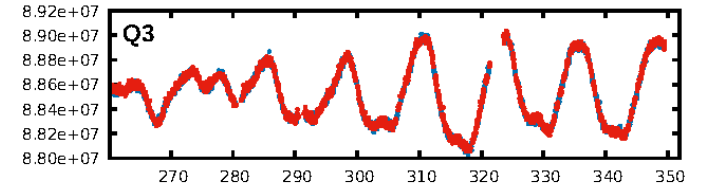
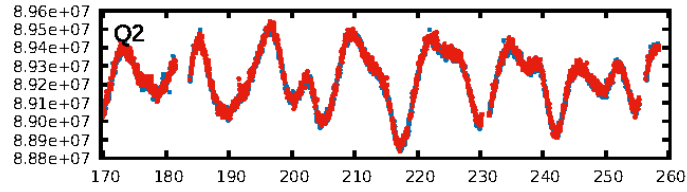
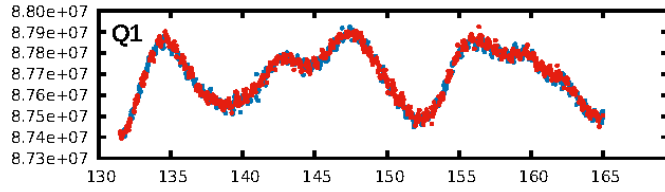
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [77.66σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [2352/2359]
GhostDiagnostic-chr: -8.912
Centroid-sig: 0.8%
Centroid-so: 2.862 arcsec [2.07σ]
OotOffset-rm: 0.590 arcsec [0.91σ]
OotOffset-st: 1/4/0/3 [8]
KicOffset-rm: 0.771 arcsec [0.79σ]
KicOffset-st: 1/4/0/3 [8]
DiffImageQuality-fgm: 0.12 [1/8]
DiffImageOverlap-fno: 1.00 [17/17]

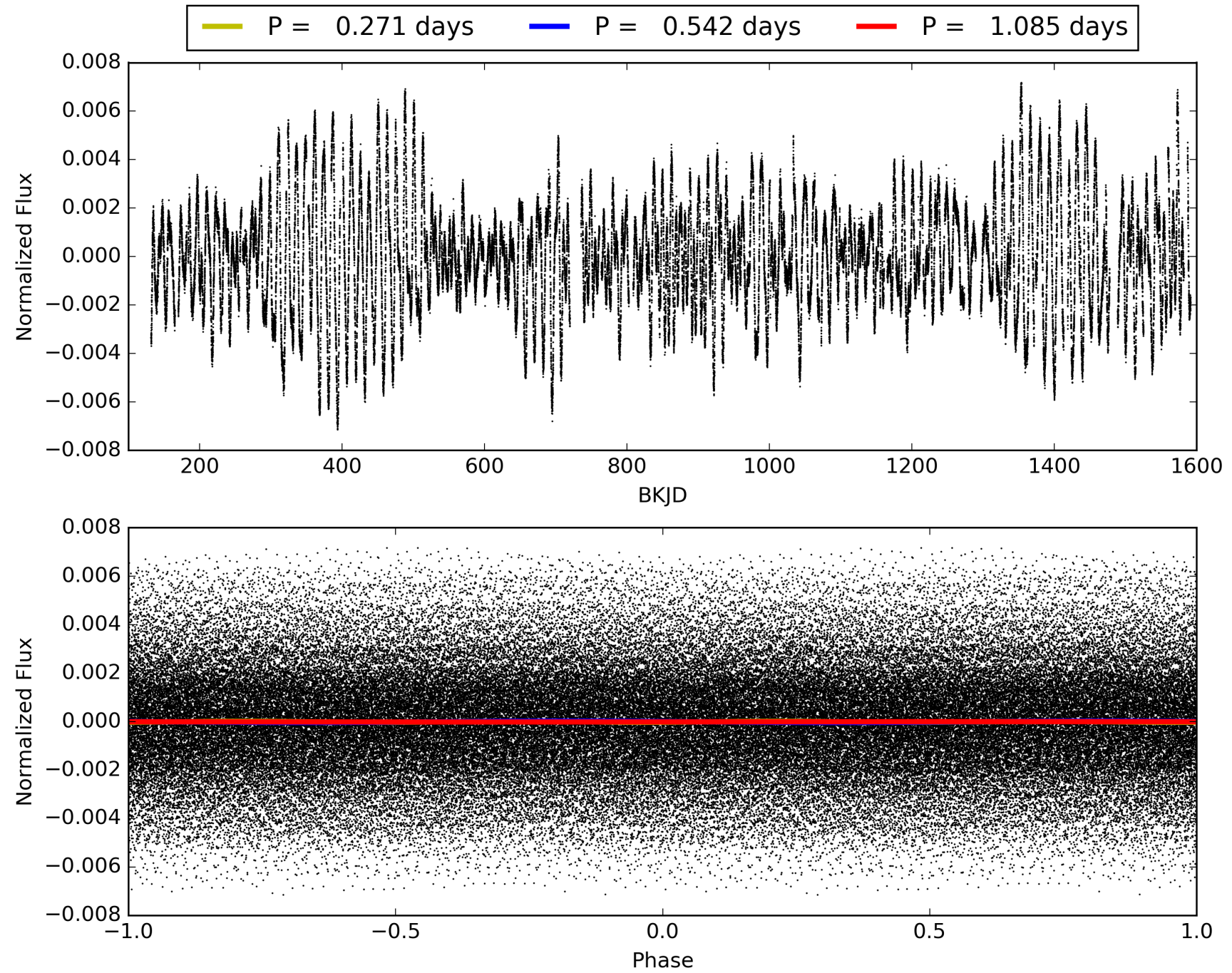
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 003648000-01, PDC Light Curves

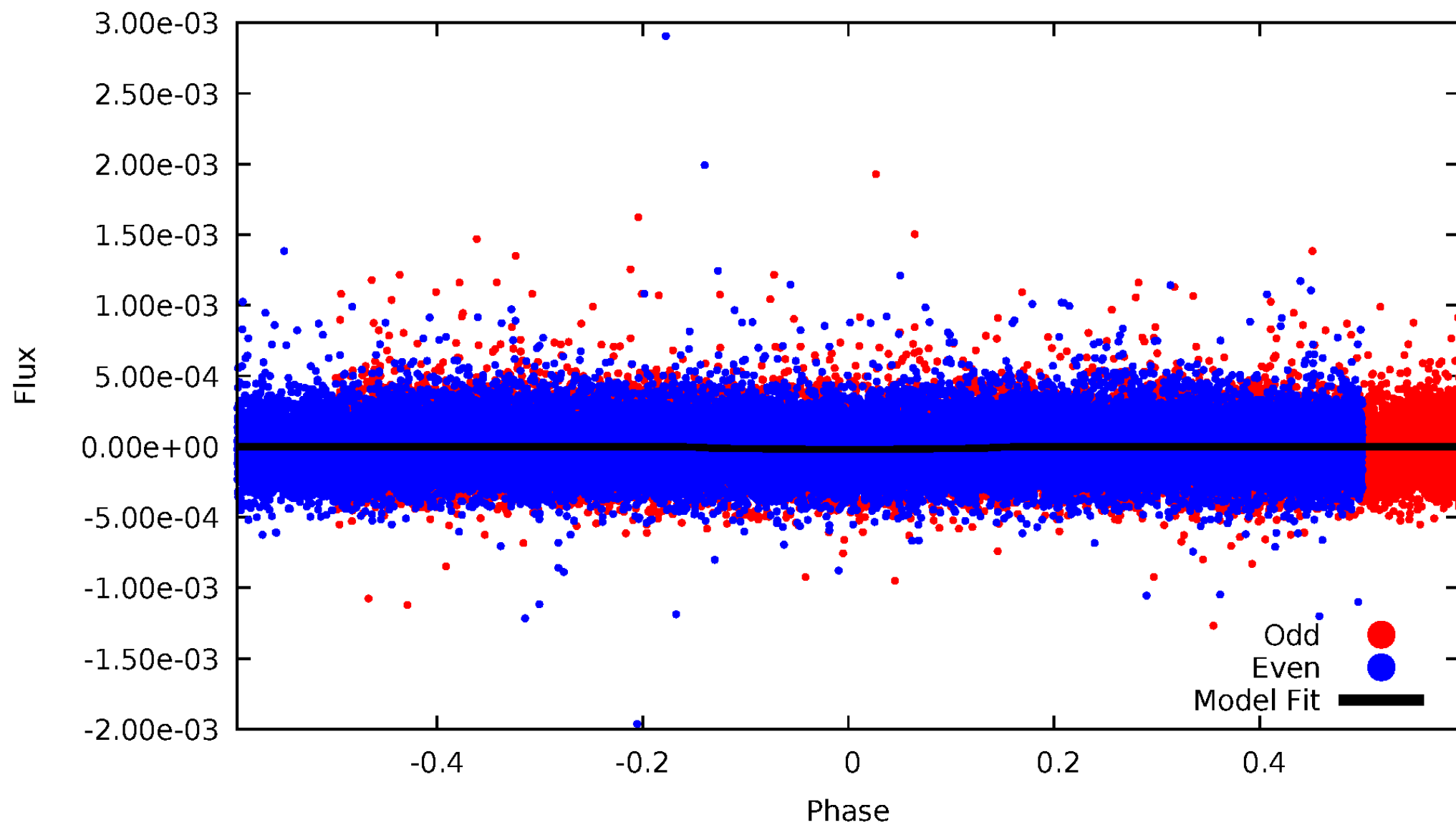


TCE 003648000-01



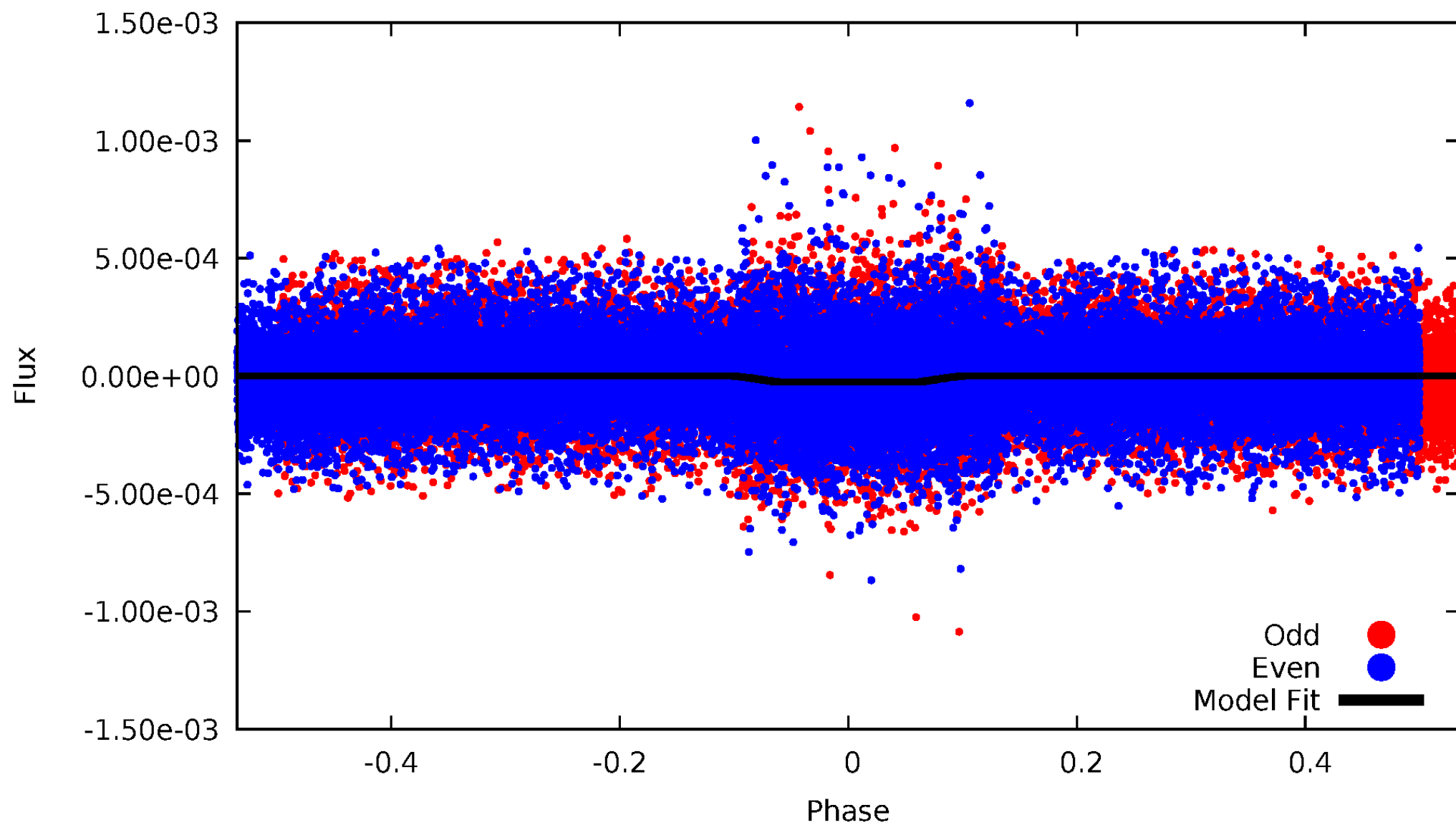
DV Odd/Even

TCE 003648000-01

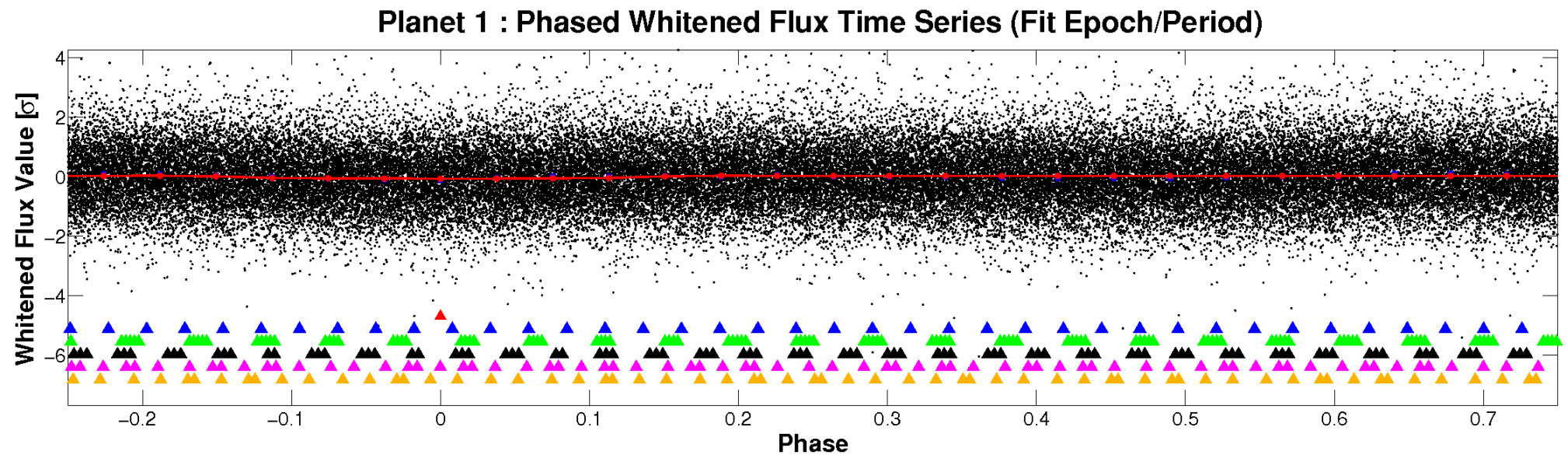
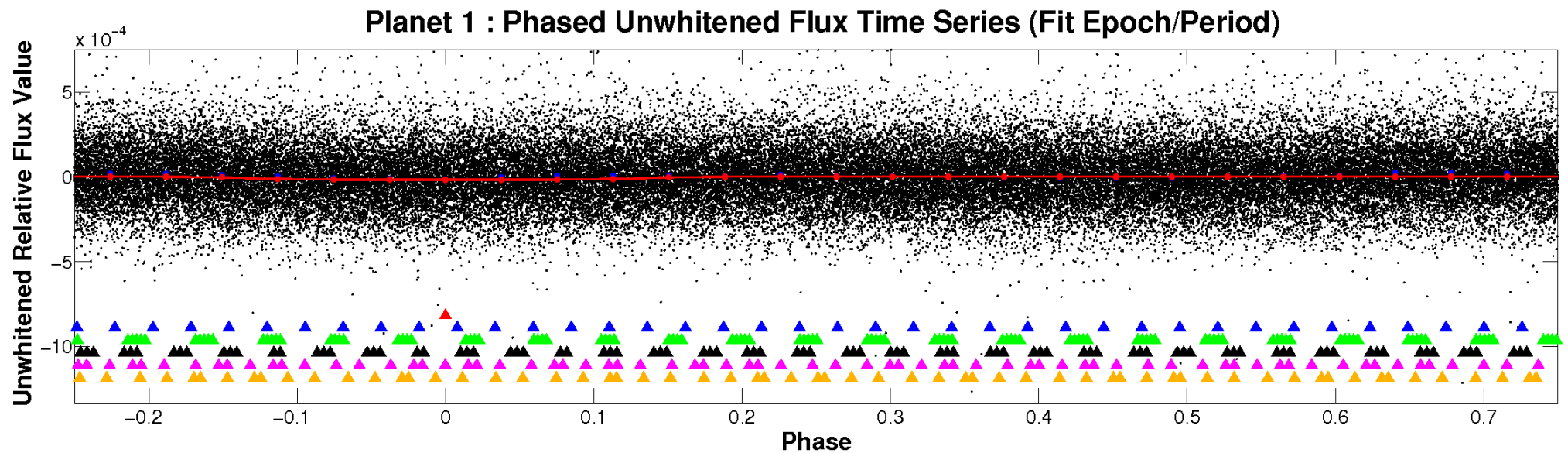


ALT Odd/Even

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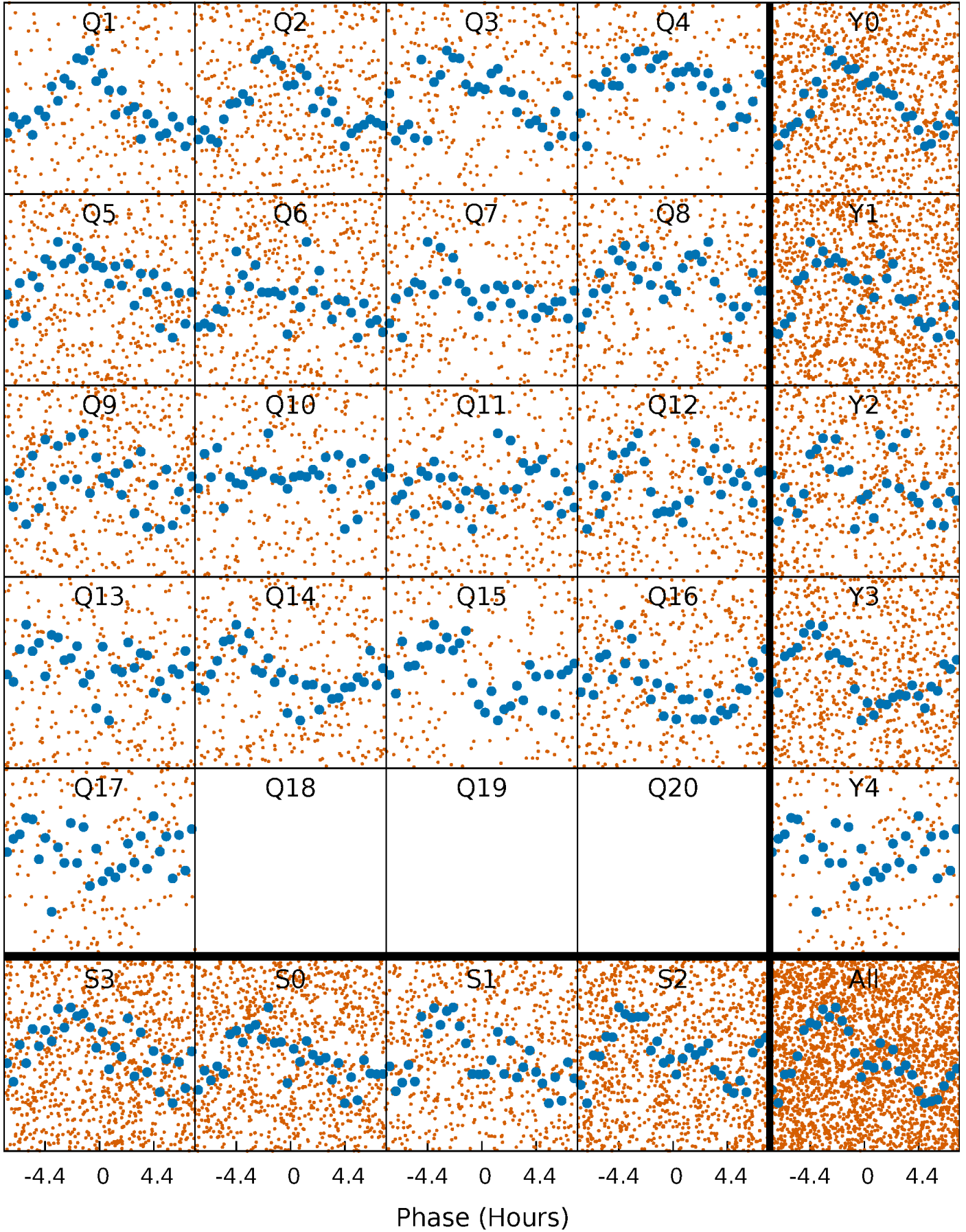


Non-Whitened Vs. Whitened Light Curve



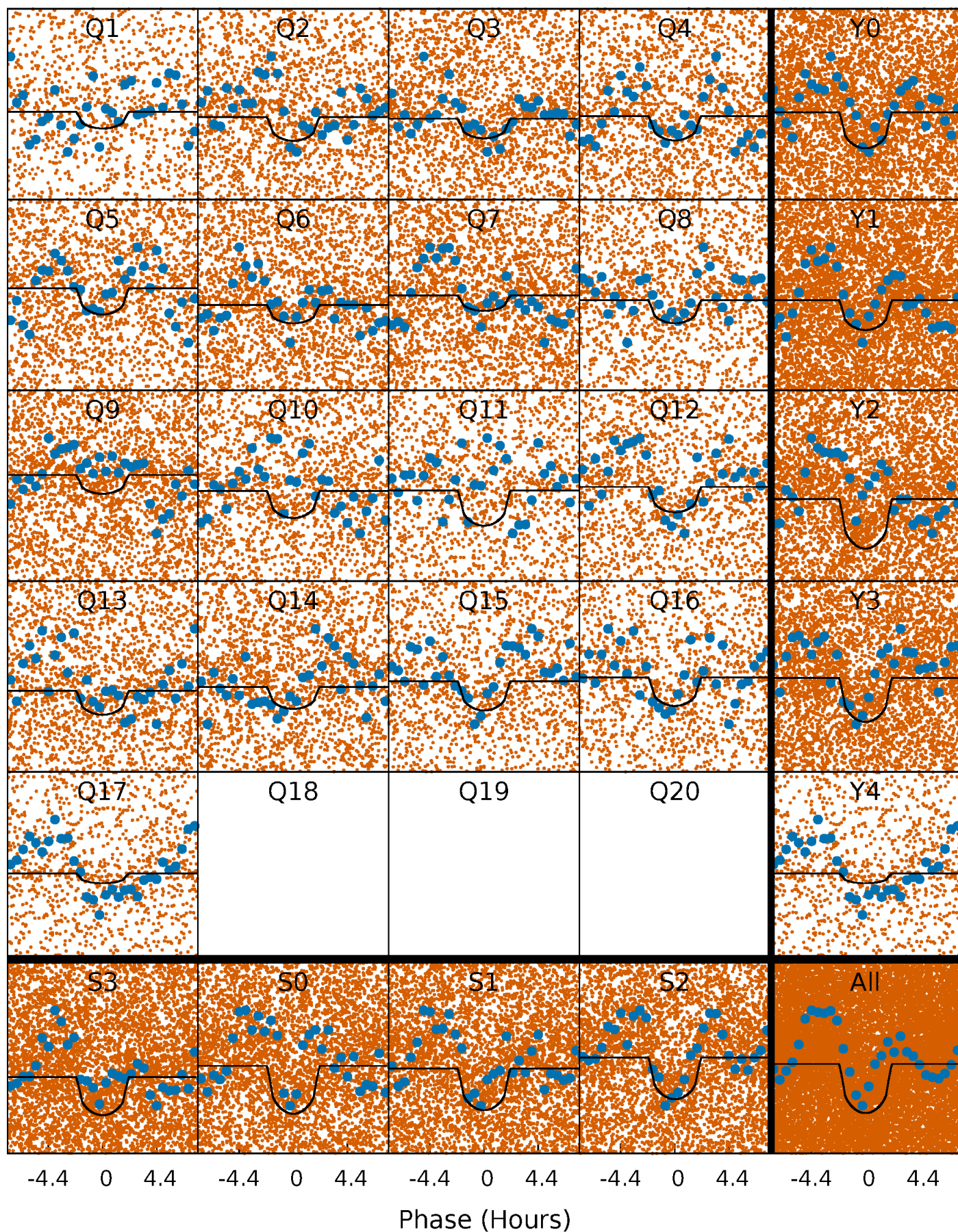
PDC Quarter-Phased Transit Curves

TCE 003648000-01 P= 0.542462 Days $T_0=132.038973$ (BKJD)



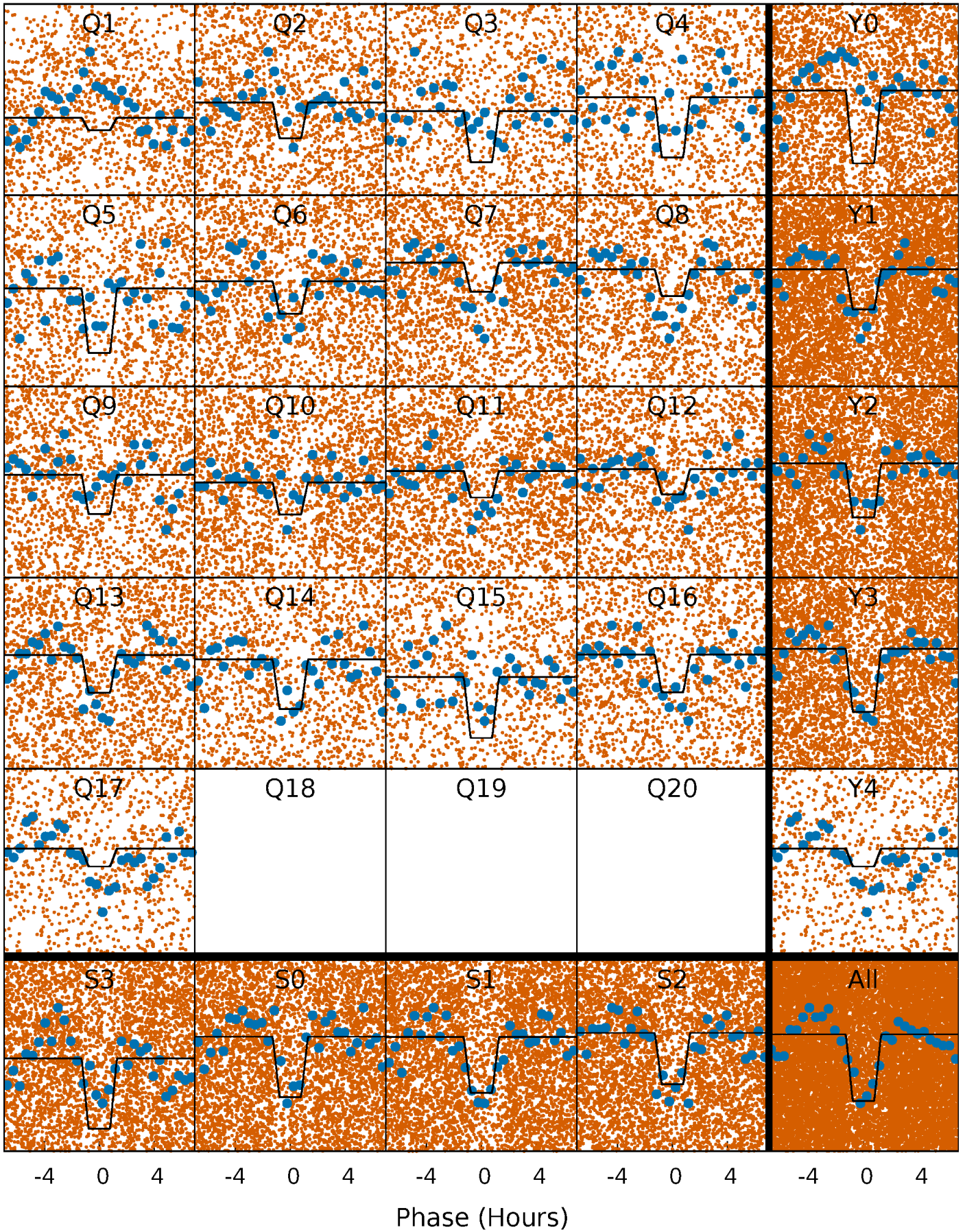
DV Quarter-Phased Transit Curves

TCE 003648000-01 P= 0.542462 Days $T_0=132.038973$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

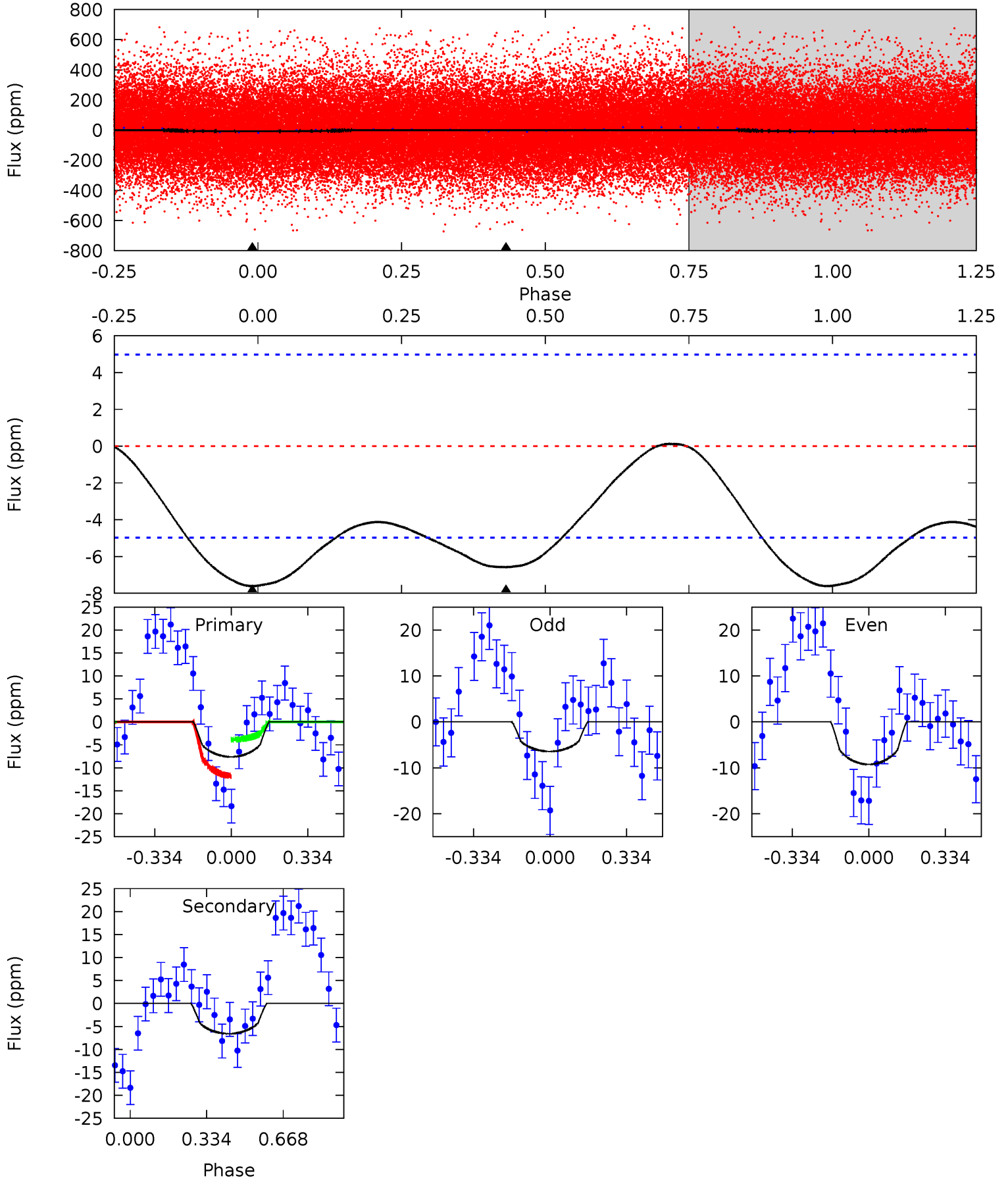
TCE 003648000-01 P= 0.542451 Days $T_0=132.033698$ (BKJD)



DV Model-Shift Uniqueness Test

003648000-01, P = 0.542462 Days, E = 131.496511 Days

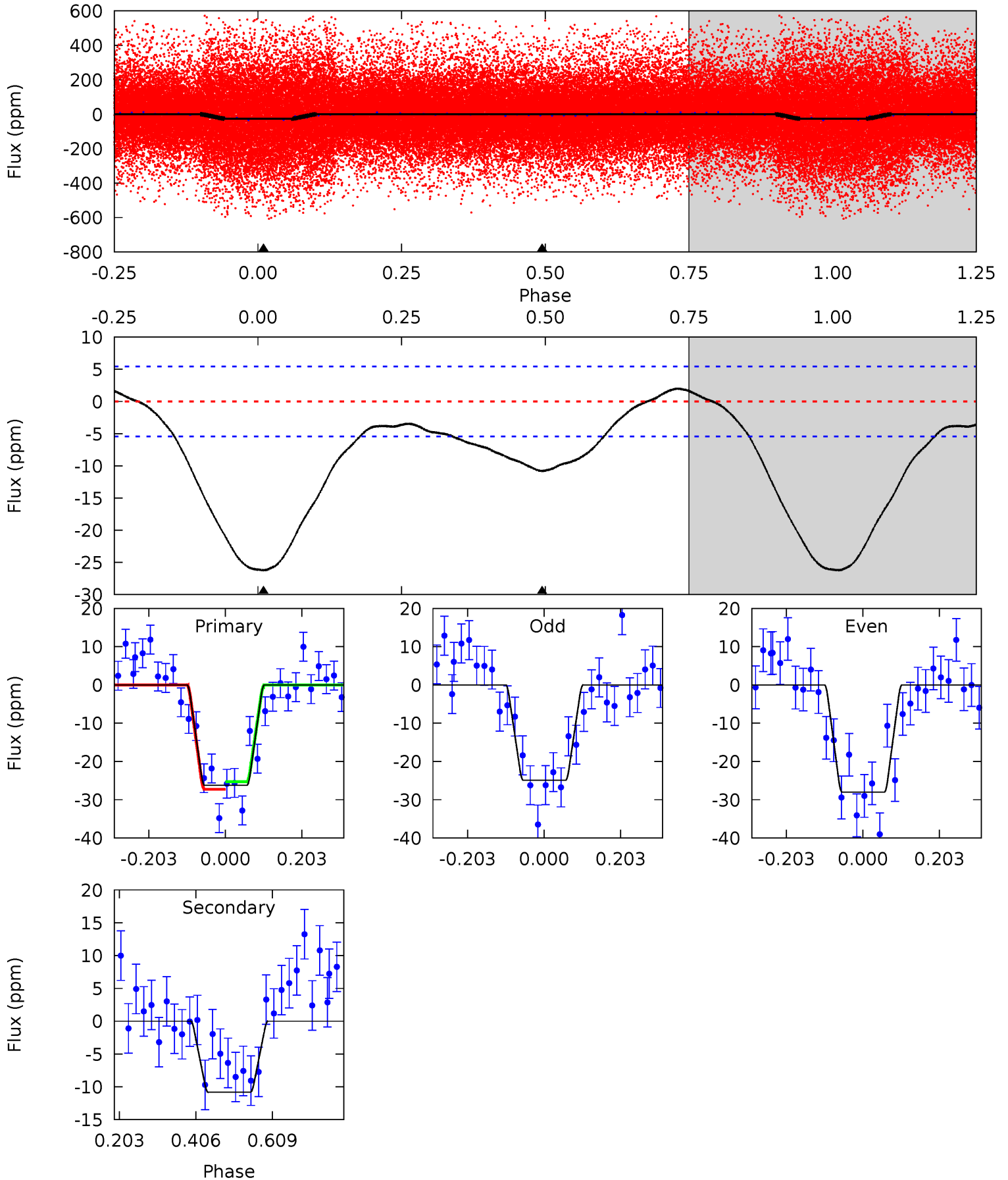
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.58	5.69	0	0	4.30	0.97	0.19	6.58	6.58	5.69	5.69	1.23	0.68	0.02	3.43



Alt Model-Shift Uniqueness Test

003648000-01, P = 0.542451 Days, E = 131.491247 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.3	8.80	0	0	4.41	1.27	2.00	21.3	21.3	8.80	8.80	1.26	0.87	0.07	0.81



Stellar Parameters For KIC 003648000

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	4321^{+129}_{-129}	$4.638^{+0.053}_{-0.025}$	$-0.280^{+0.300}_{-0.300}$	$0.616^{+0.045}_{-0.055}$	$0.602^{+0.068}_{-0.049}$	$3.624^{+0.851}_{-0.441}$
	+3%/-3%	+1%/-1%	+107%/-107%	+7%/-9%	+11%/-8%	+23%/-12%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 003648000-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-7 ± 1	$0.28^{+0.18}_{-0.15}$	1985^{+66}_{-66}	3576^{+1089}_{-567}	$5.472^{+19.320}_{-3.501}$
Alt.	-11 ± 1	$0.35^{+0.16}_{-0.16}$	1976^{+69}_{-64}	3642^{+967}_{-435}	$6.081^{+14.819}_{-3.148}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

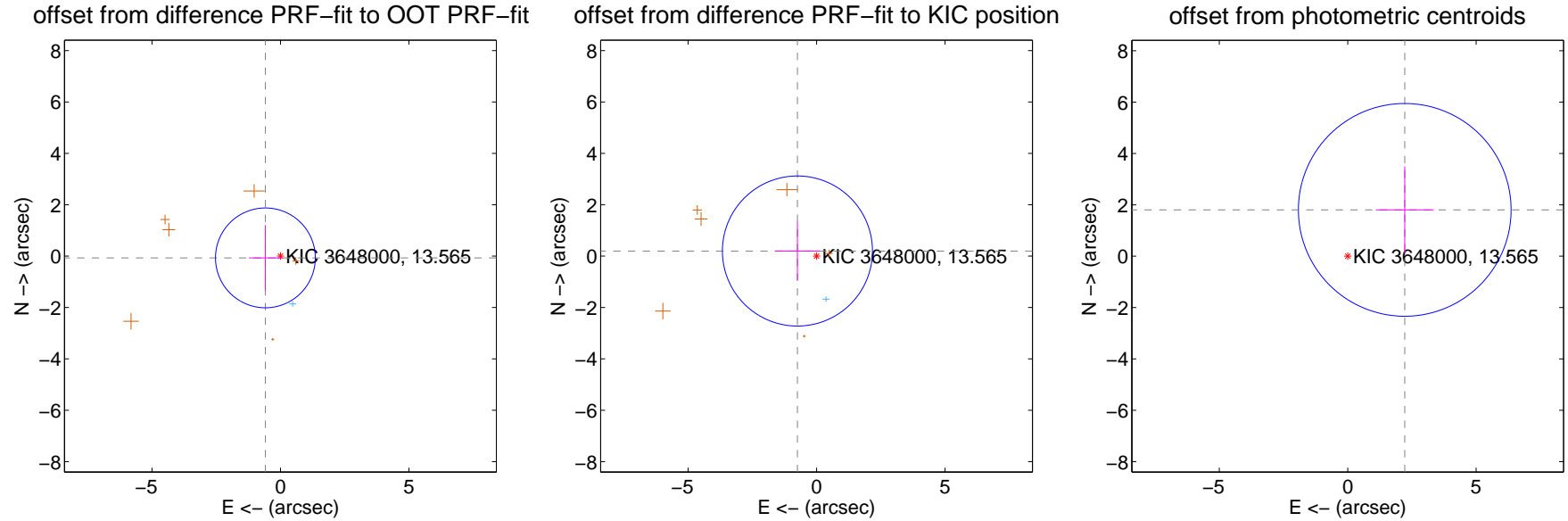
DV Centroid Data

Supplemental centroid analysis for 003648000-01. Kepler magnitude: 13.56. Transit SNR 8.82

There are 1 quarters with good PRF difference image offsets

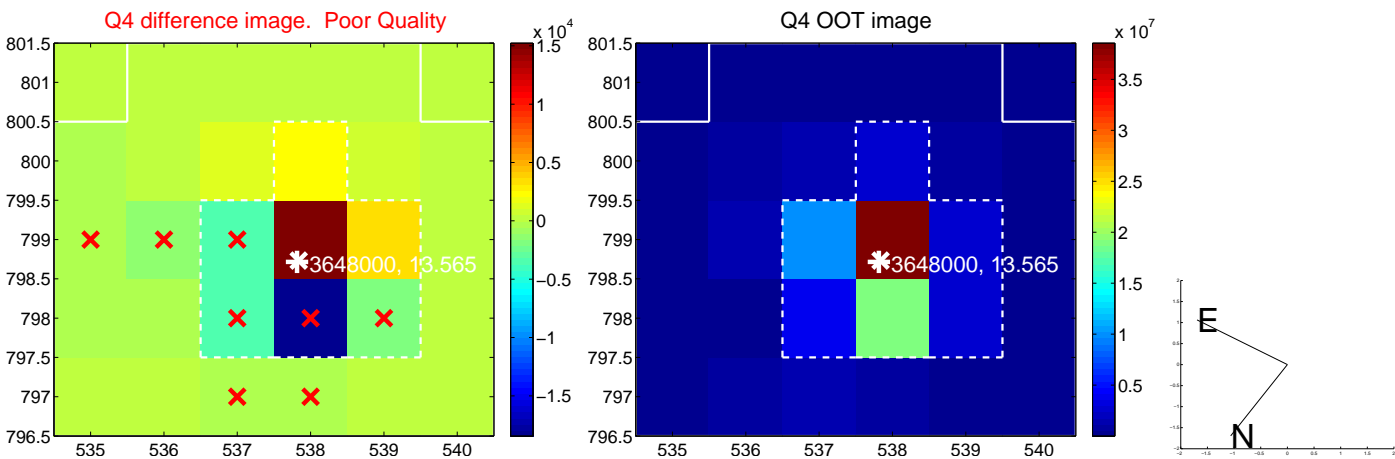
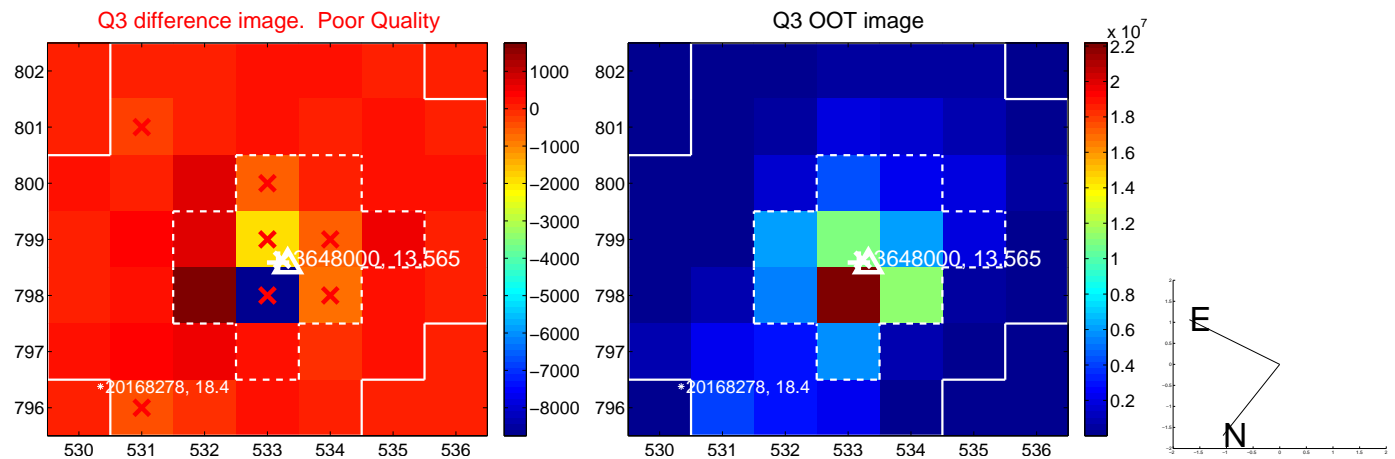
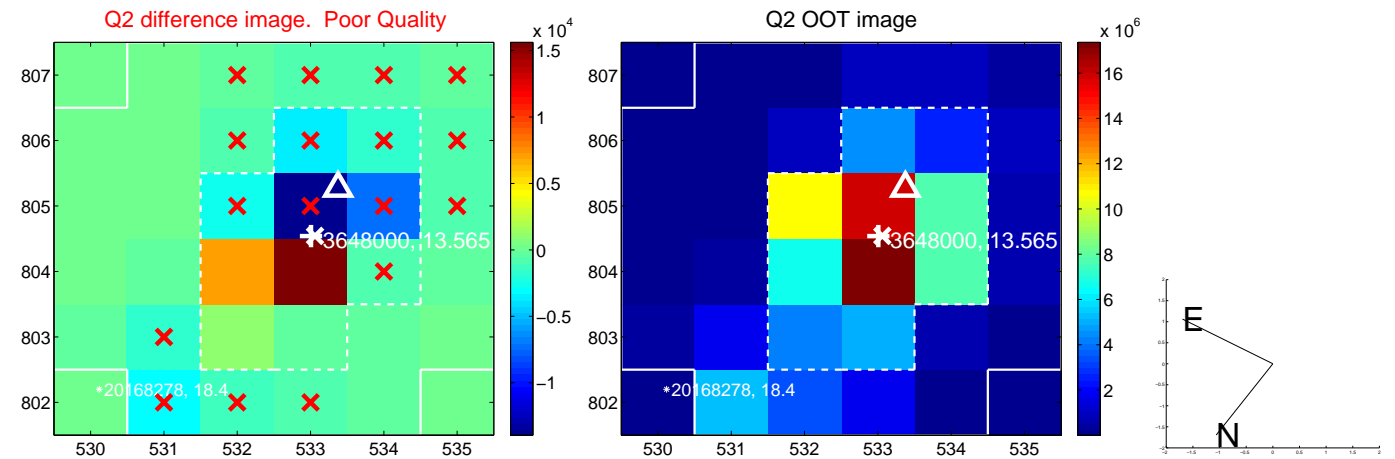
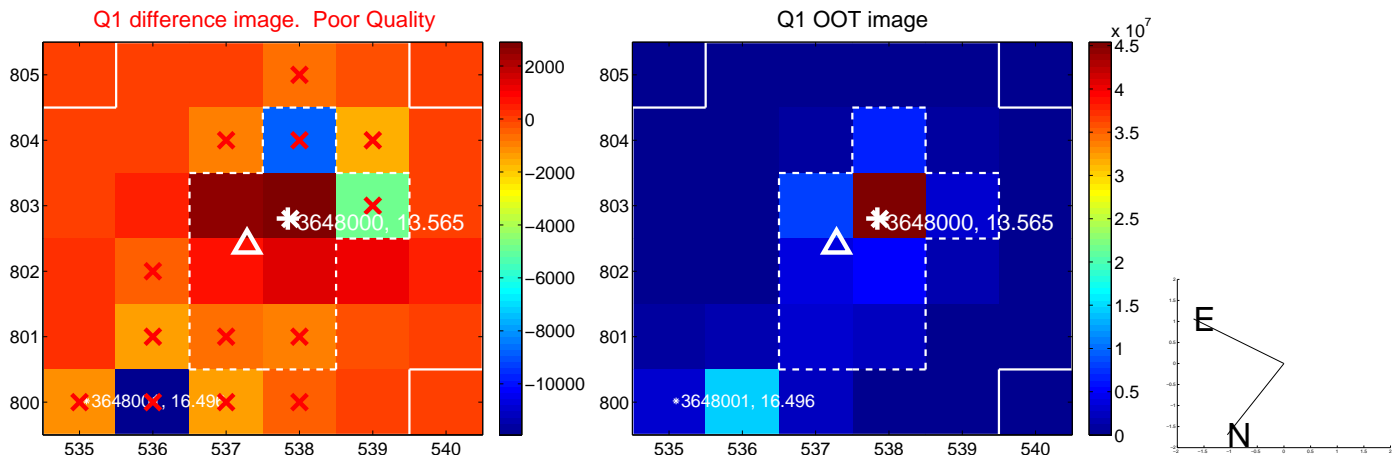
The direct PRF centroid is offset from the target star catalog position by about 0.22 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.590 ± 0.648	0.91	0.586 ± 0.641	-0.068 ± 1.272
PRF-fit source offset from KIC position	0.771 ± 0.974	0.79	0.745 ± 0.880	0.199 ± 1.140
photometric centroid source offset	2.86 ± 1.38	2.07	-2.22 ± 1.13	1.80 ± 1.69

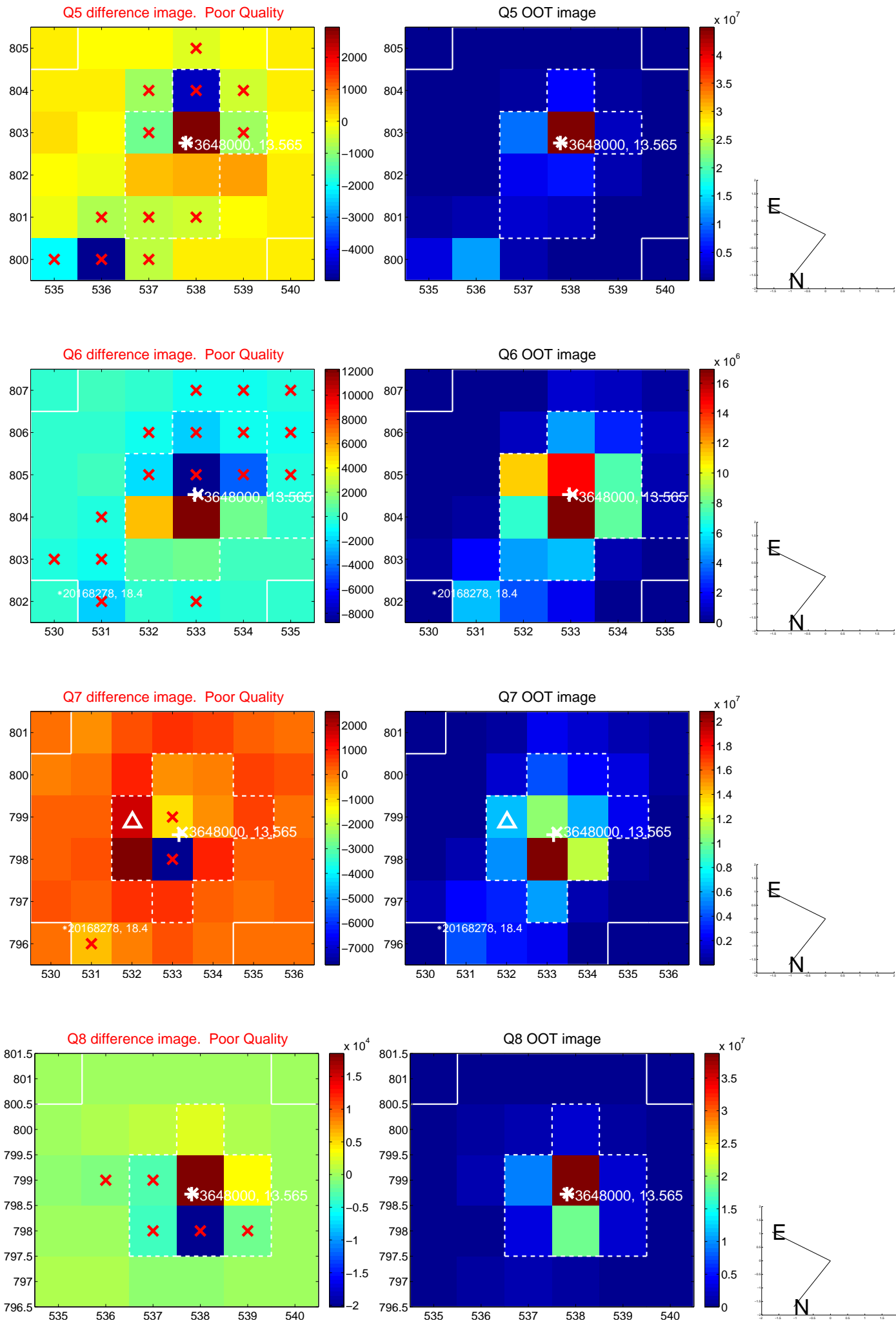


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

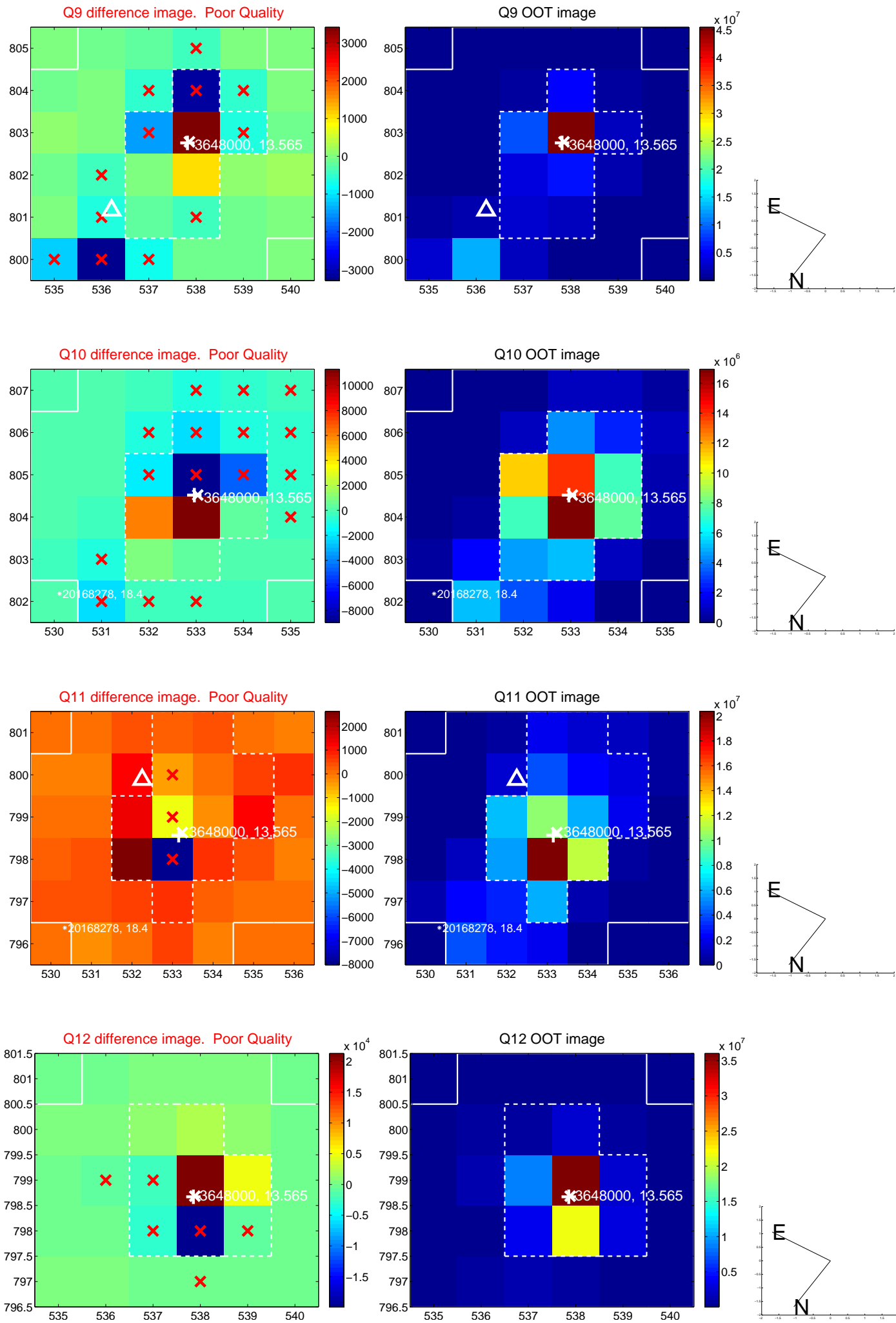
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



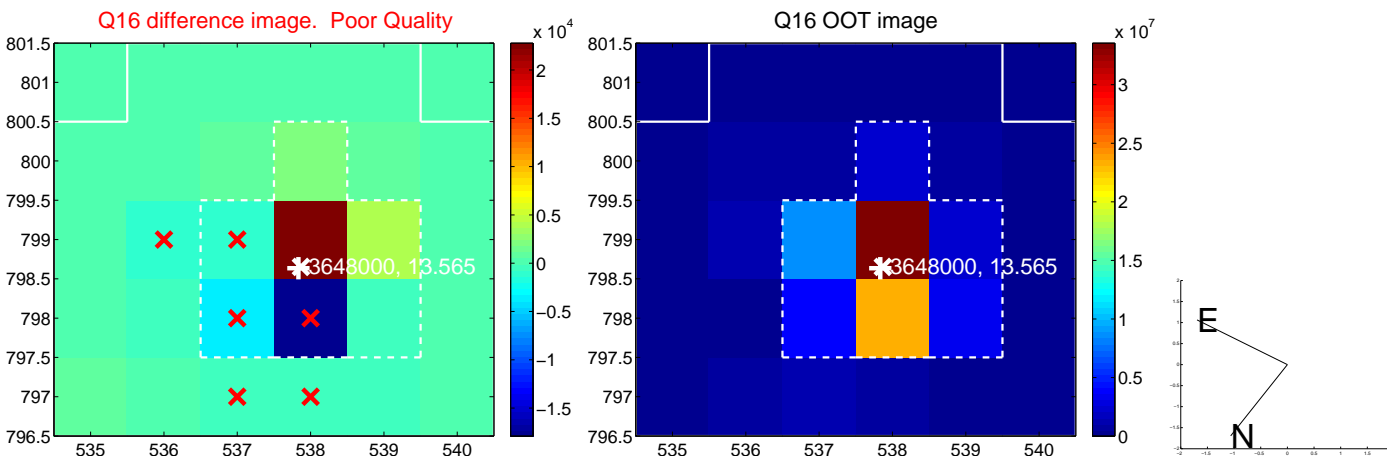
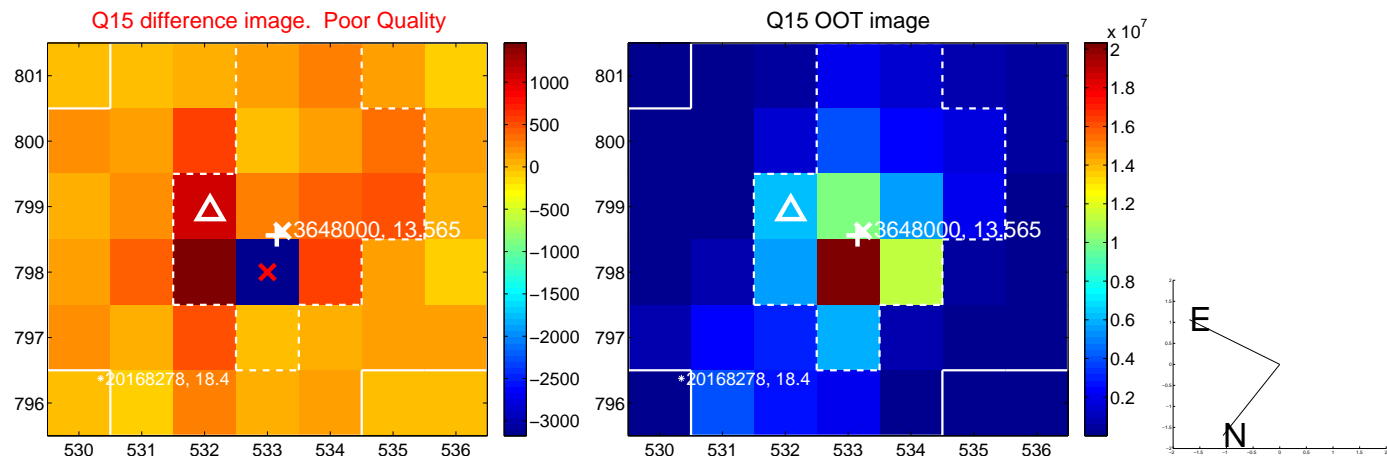
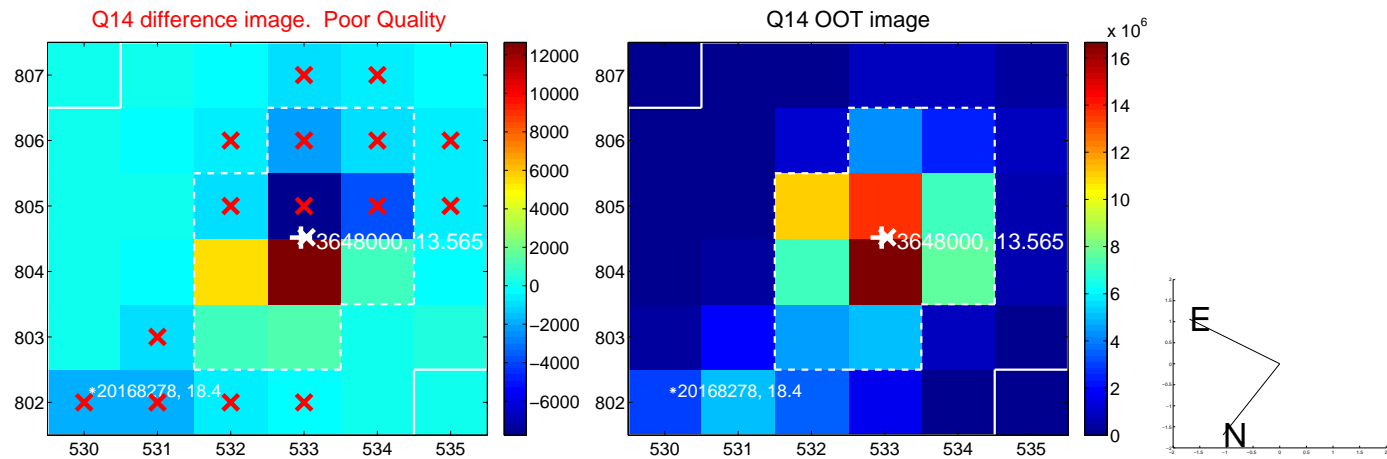
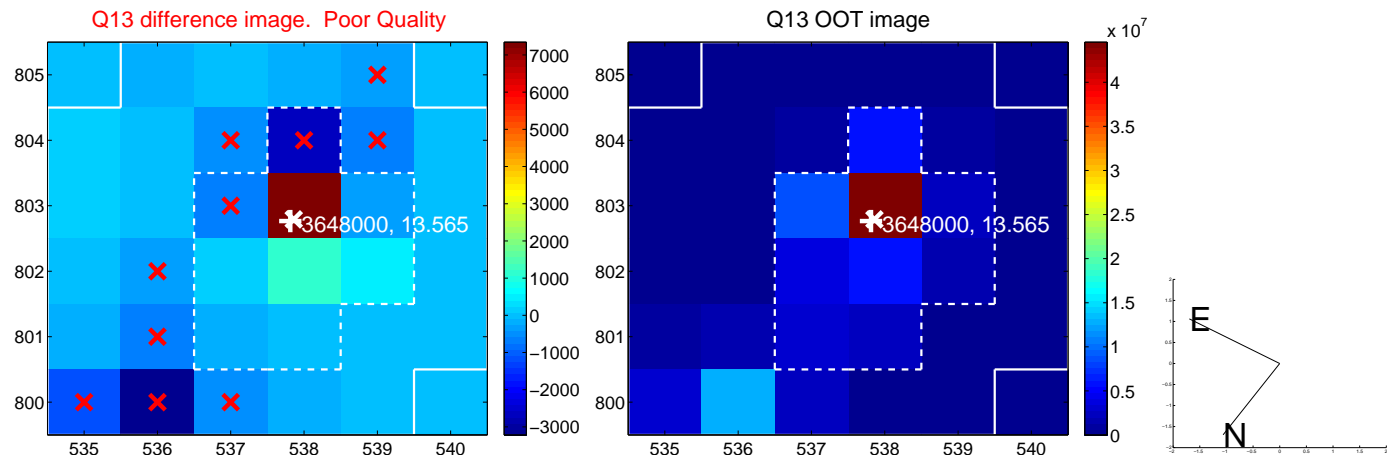
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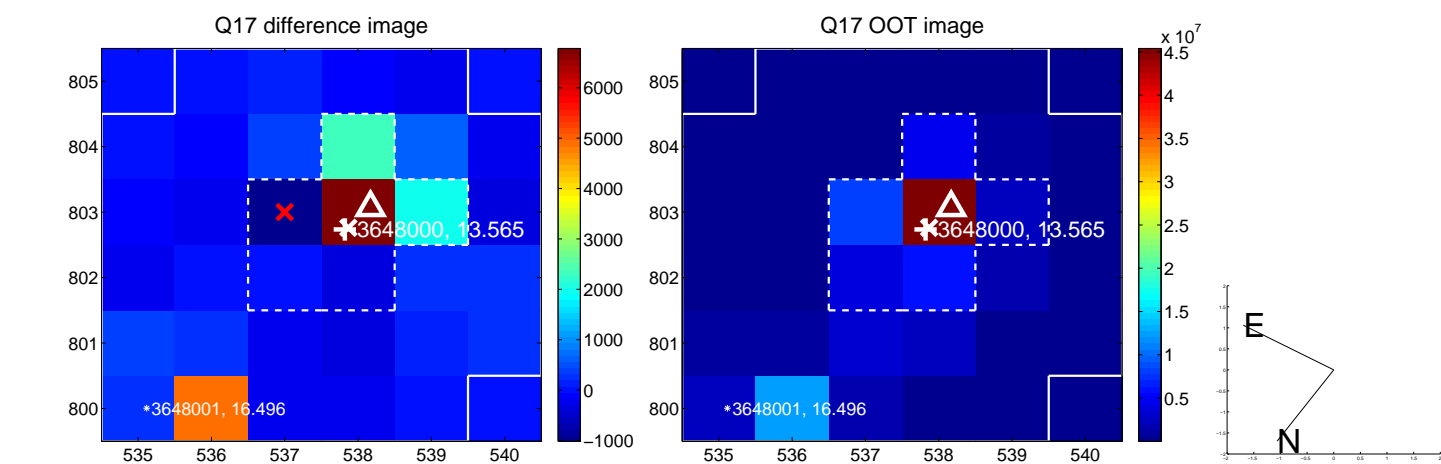
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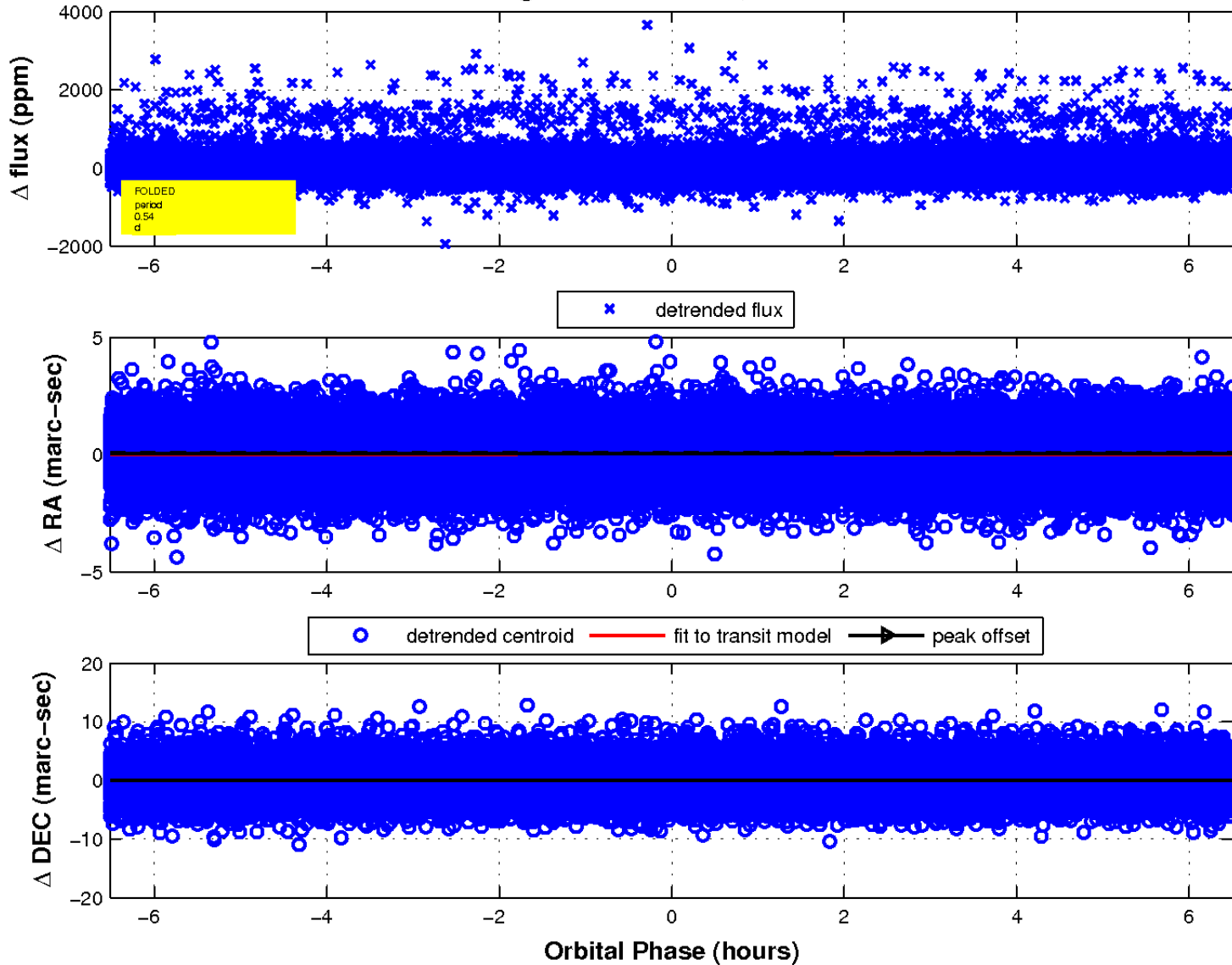
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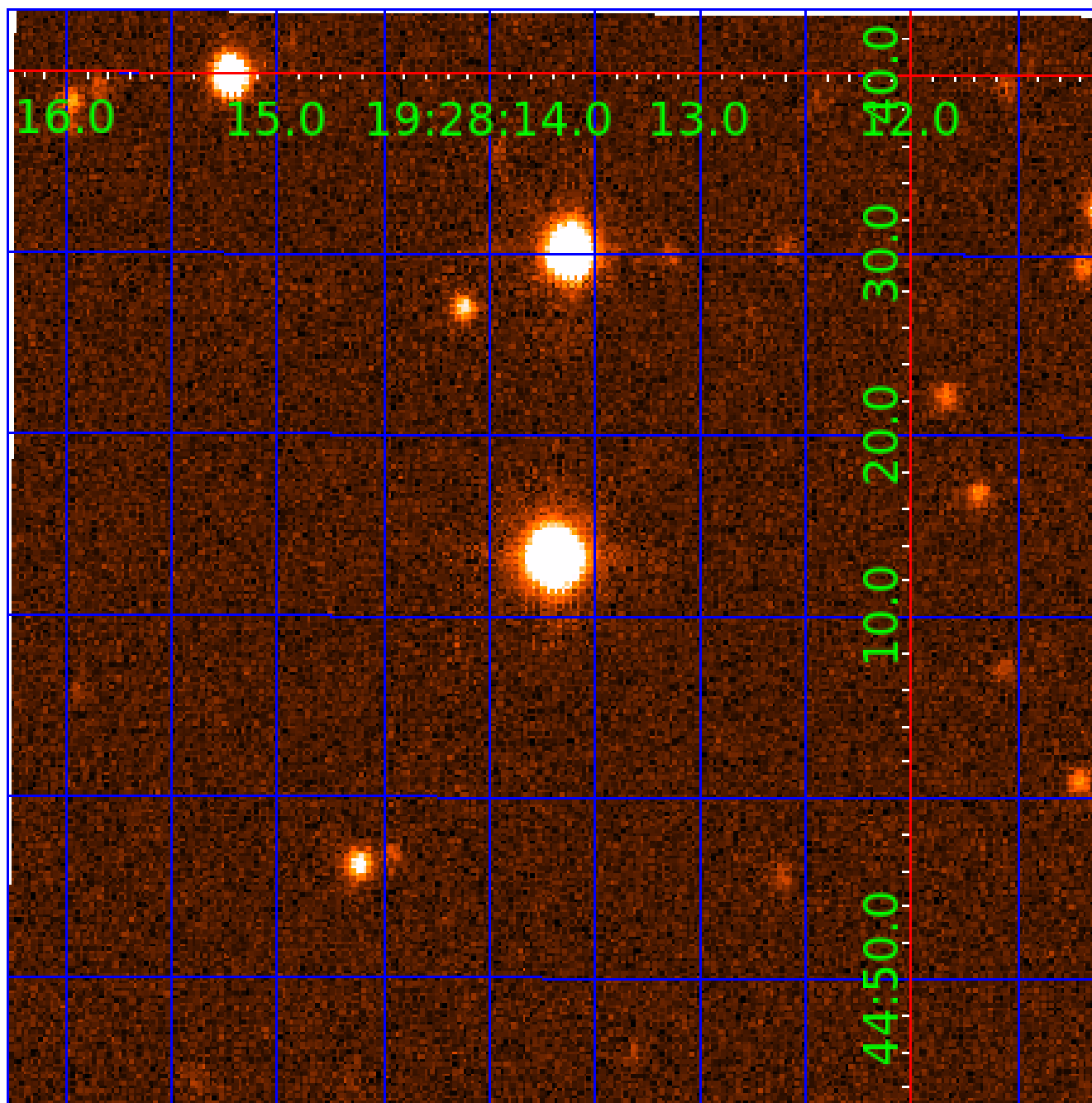


fluxWeightedCentroids, Planet 1 of 6



UKIRT Image

Declination



KIC 003648000

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
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Robovetter Results

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003648000-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—CENT_UNCERTAIN—HALO_GHOST
003648000-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_MEAS
003648000-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—CENT_FEW_DIFFS
003648000-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_NOFITS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

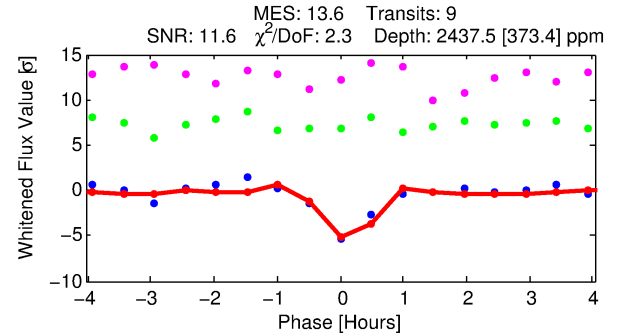
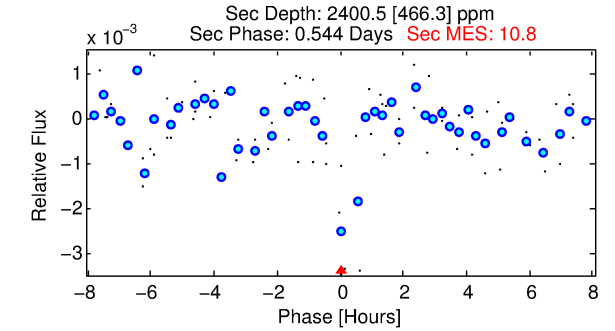
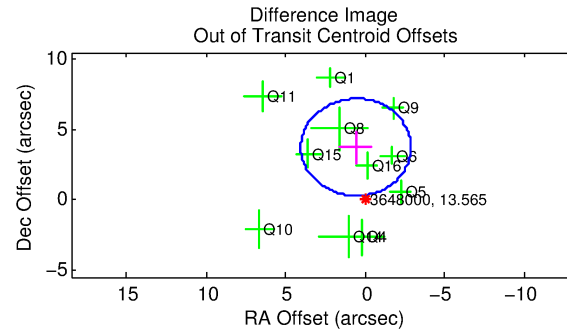
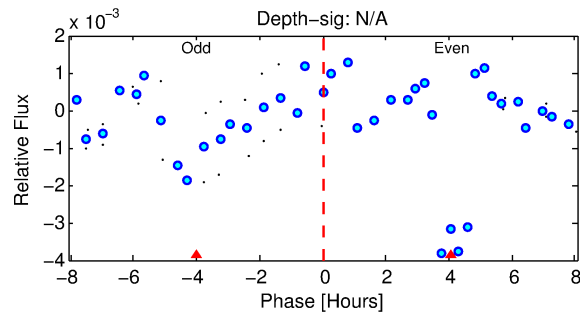
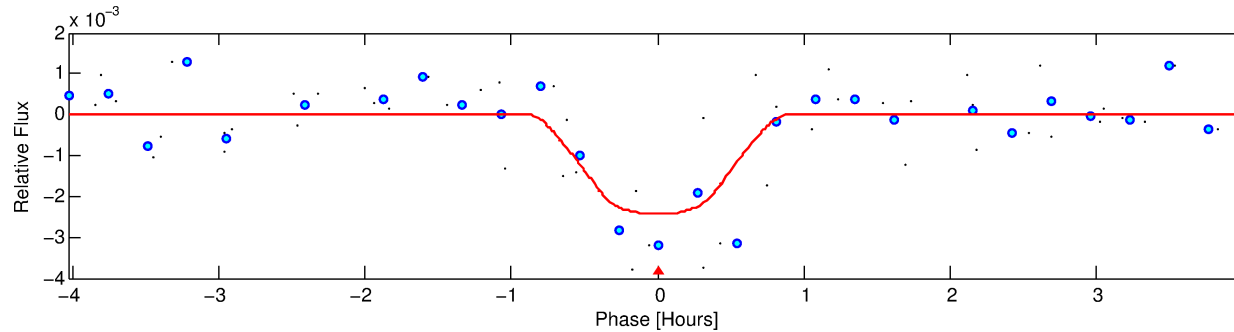
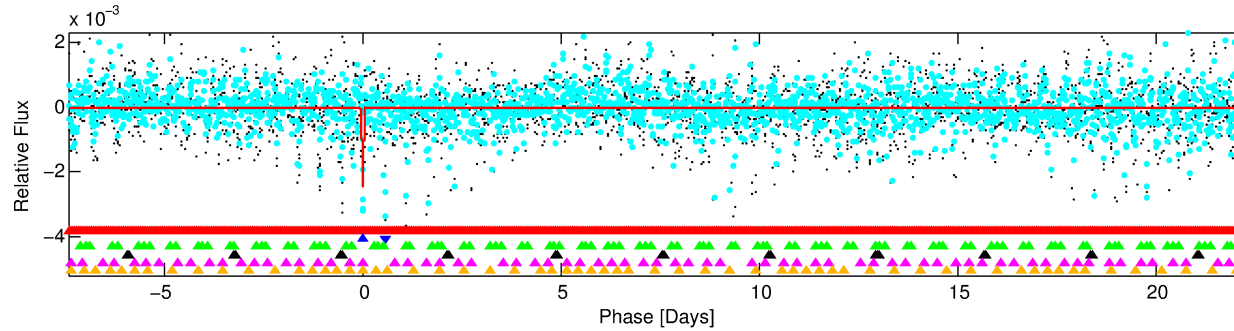
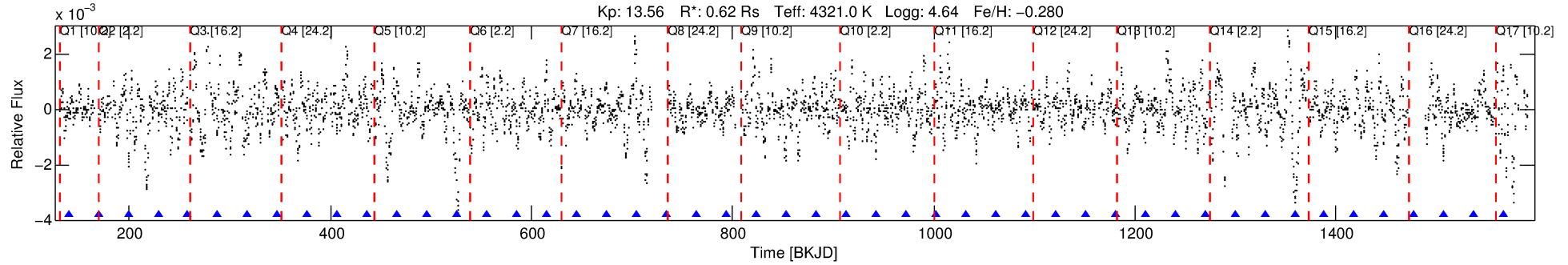
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003648000-02

No Significant Match Found

DV One-Page Summary

KIC: 3648000 Candidate: 2 of 6 Period: 29.738 d



DV Fit Results:

Period = 29.73803 [0.00017] d
Epoch = 139.5403 [0.0053] BKJD
Rp/R* = 0.0508 [0.0764]
a/R* = 117.59 [600.91]
b = 0.79 [2.56]
Seff = 4.71 [0.74]
Teq = 376 [15] K
Rp = 3.41 [5.15] Re
a = 0.1586 [0.0114] AU
Ag = 2849.24 [8595.16] [0.33σ]
Teffp = 4244 [3201] K [1.21σ]

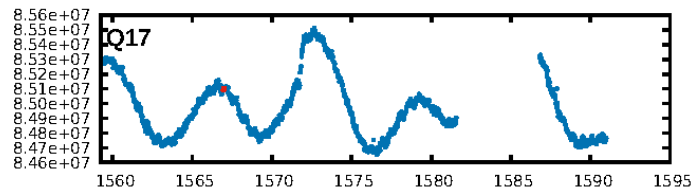
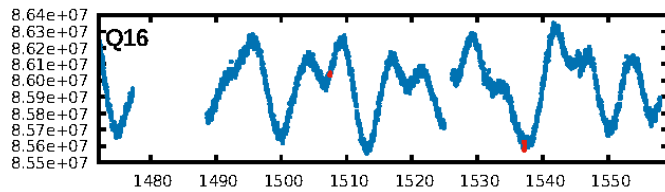
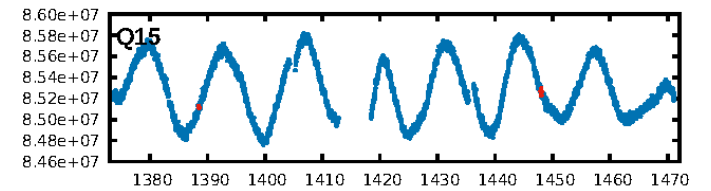
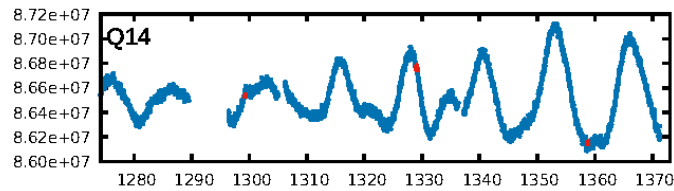
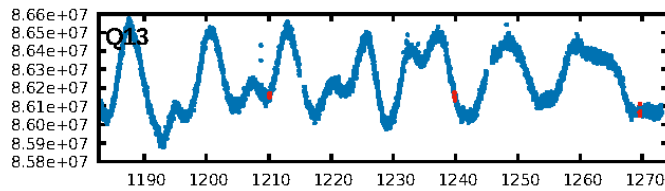
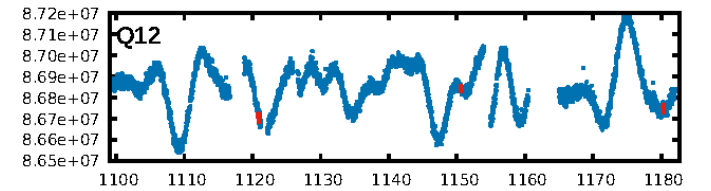
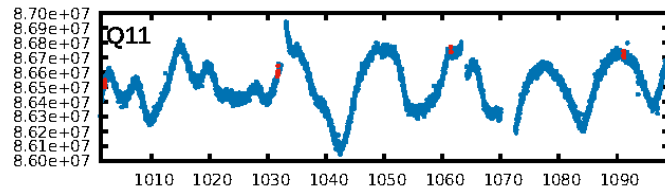
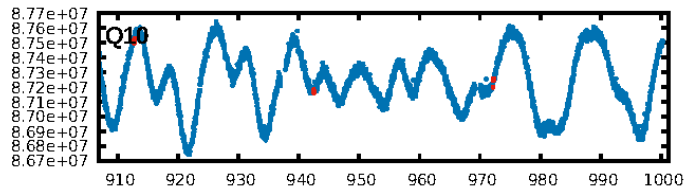
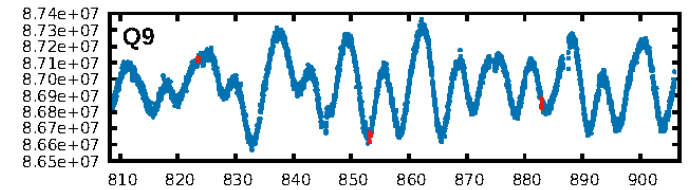
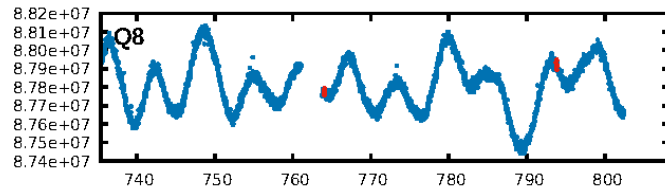
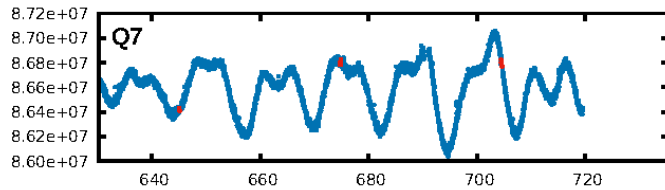
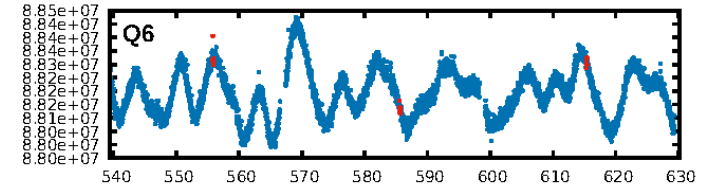
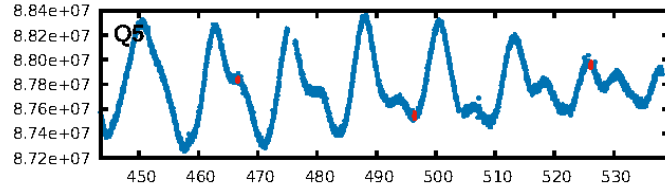
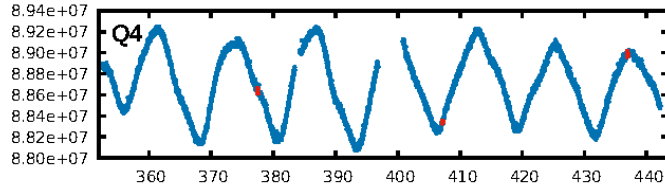
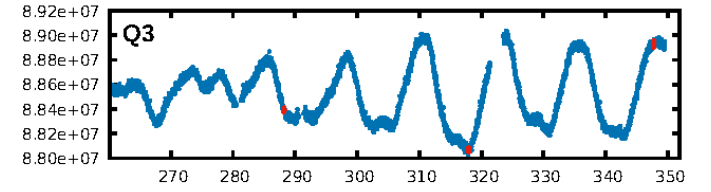
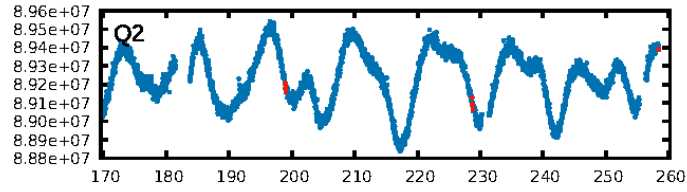
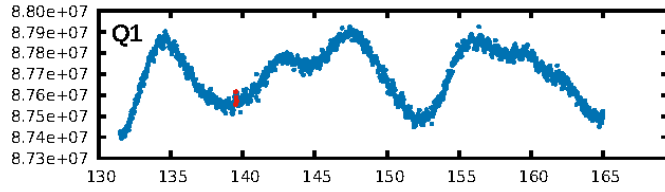
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [72.41σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 1.4%
ModelChiSquareGof-sig: 90.3%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [9/9]
GhostDiagnostic-chr: -0.02864
Centroid-sig: 0.1%
Centroid-so: 1.335 arcsec [8.94σ]
OotOffset-rm: 3.787 arcsec [3.28σ]
KicOffset-rm: 3.977 arcsec [3.31σ]
OotOffset-st: 3/2/3/3 [11]
KicOffset-st: 3/2/3/3 [11]
DiffImageQuality-fgm: 0.27 [3/11]
DiffImageOverlap-fno: 0.00 [0/17]

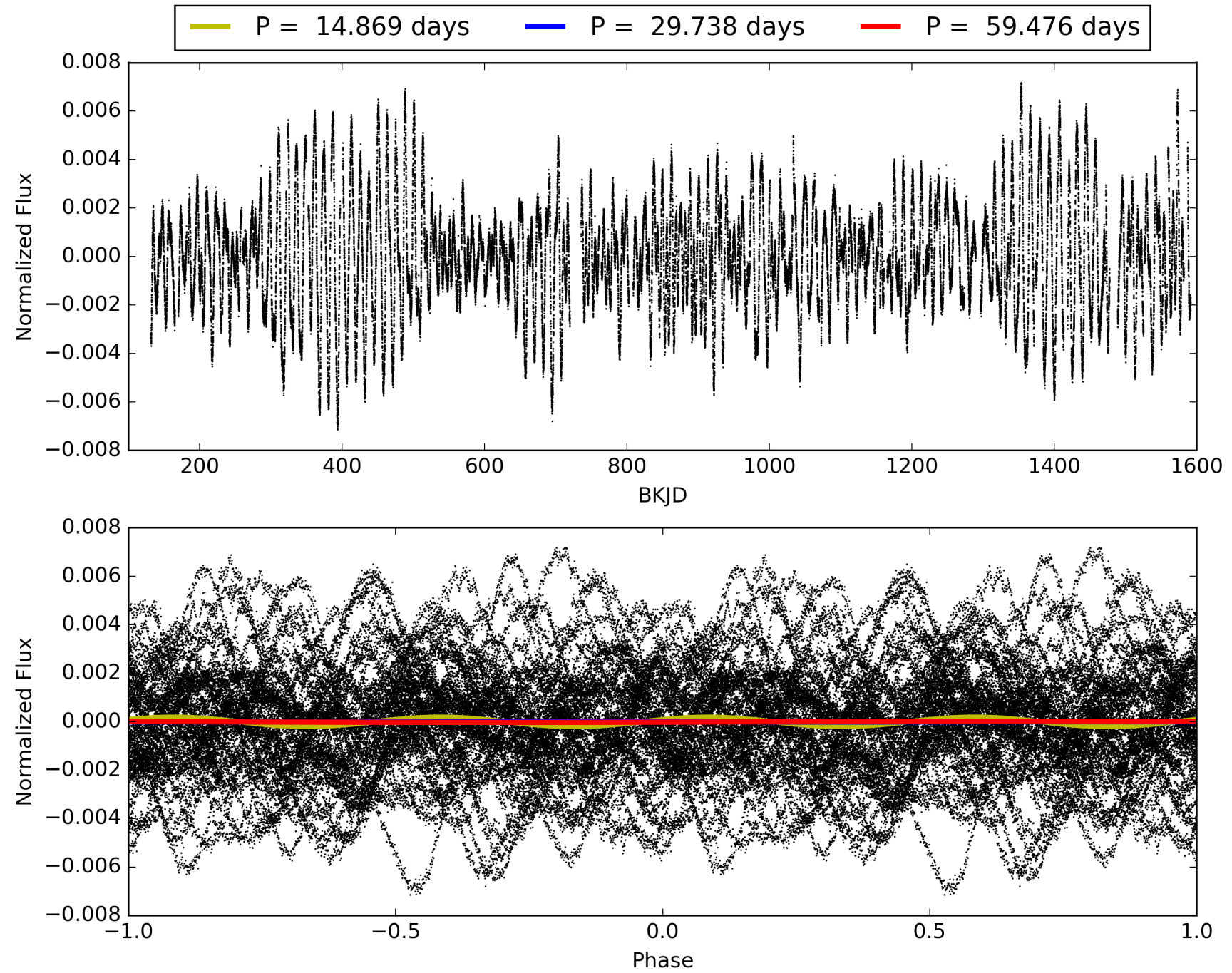
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 06:04:17 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 003648000-02, PDC Light Curves

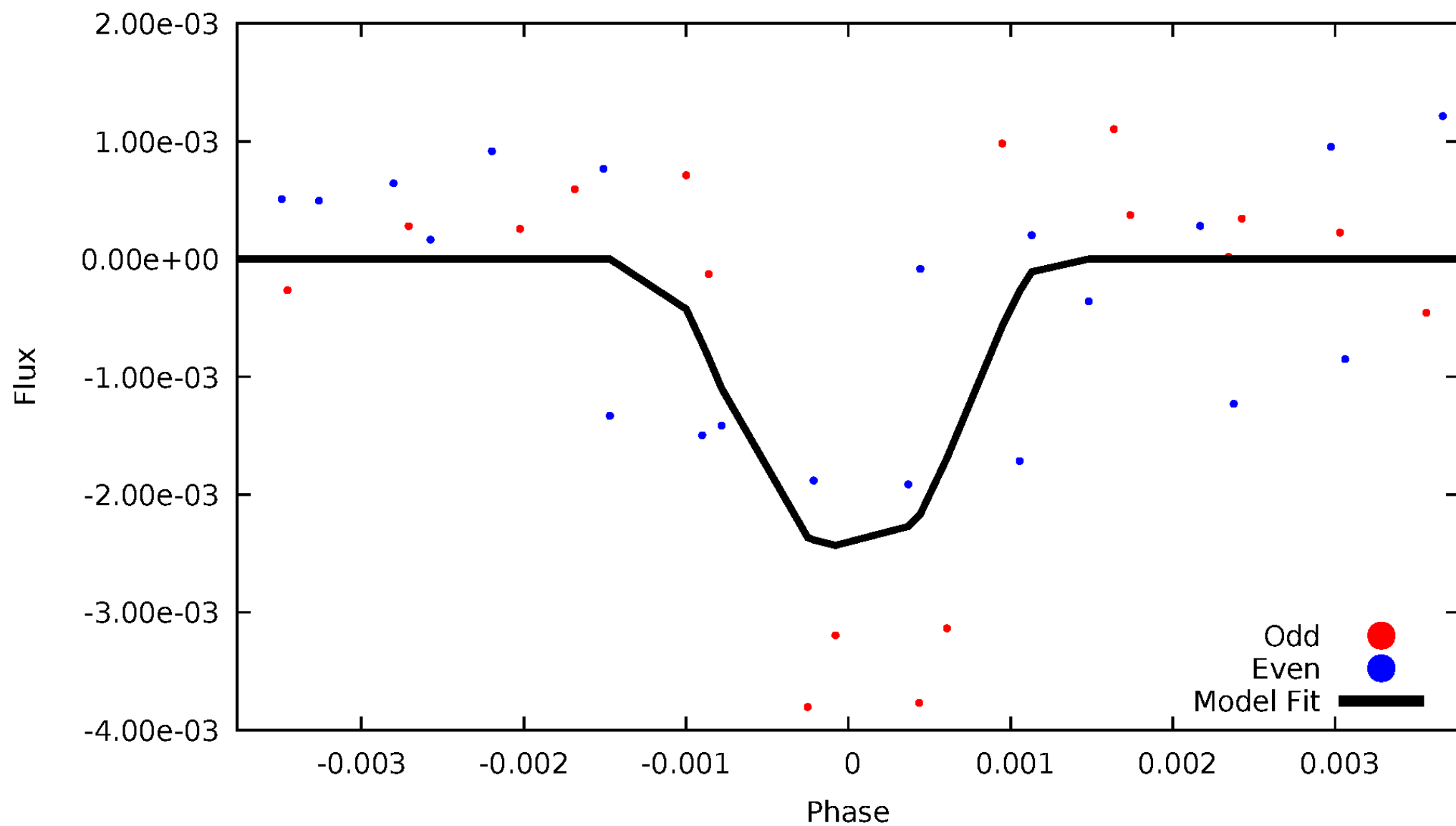


TCE 003648000-02



DV Odd/Even

TCE 003648000-02

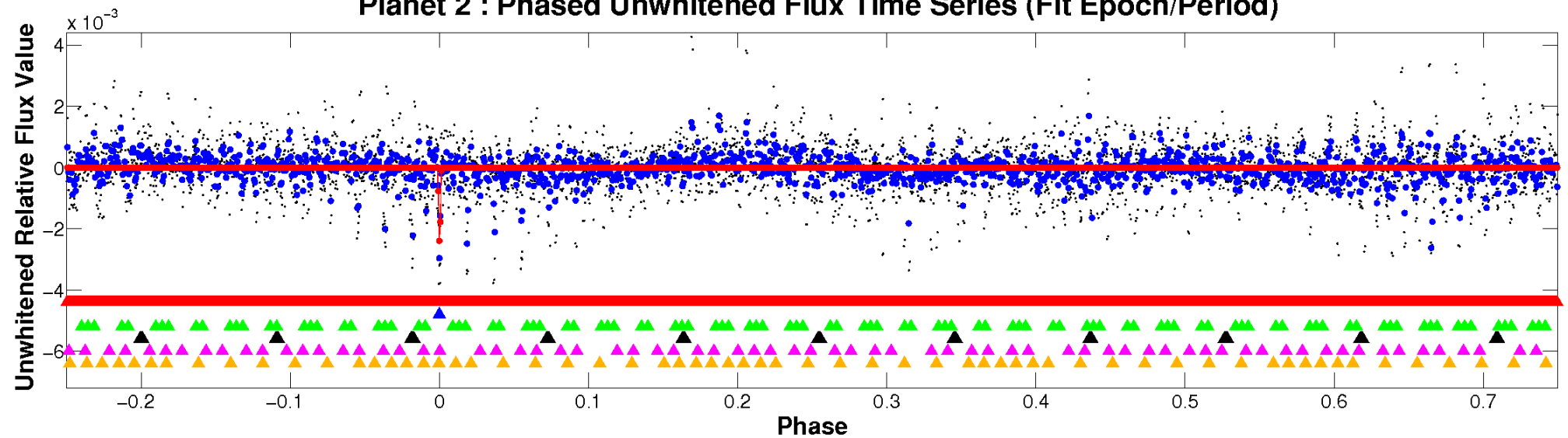


ALT Odd/Even

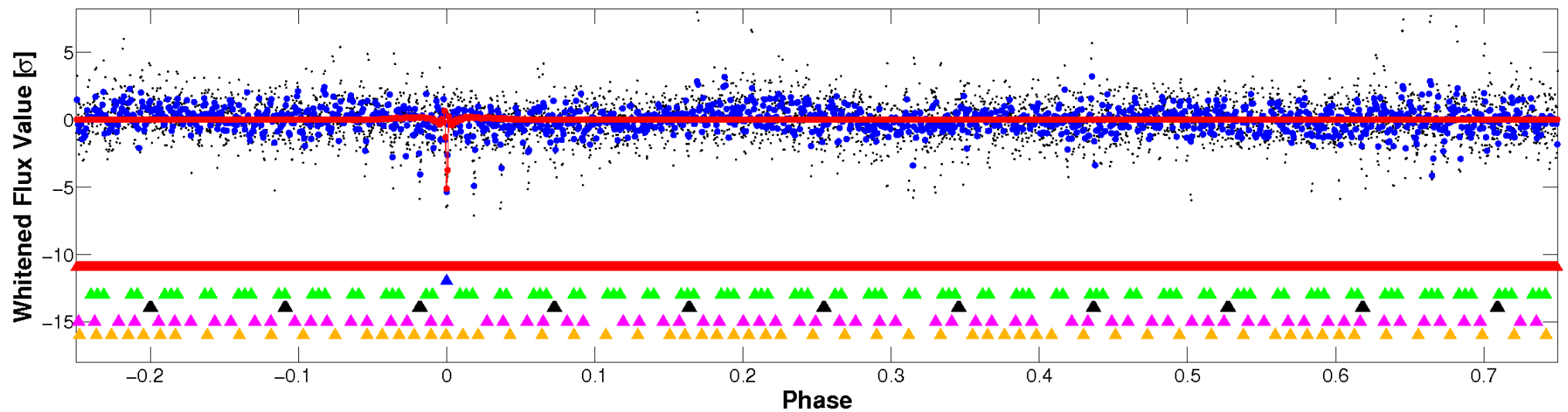
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

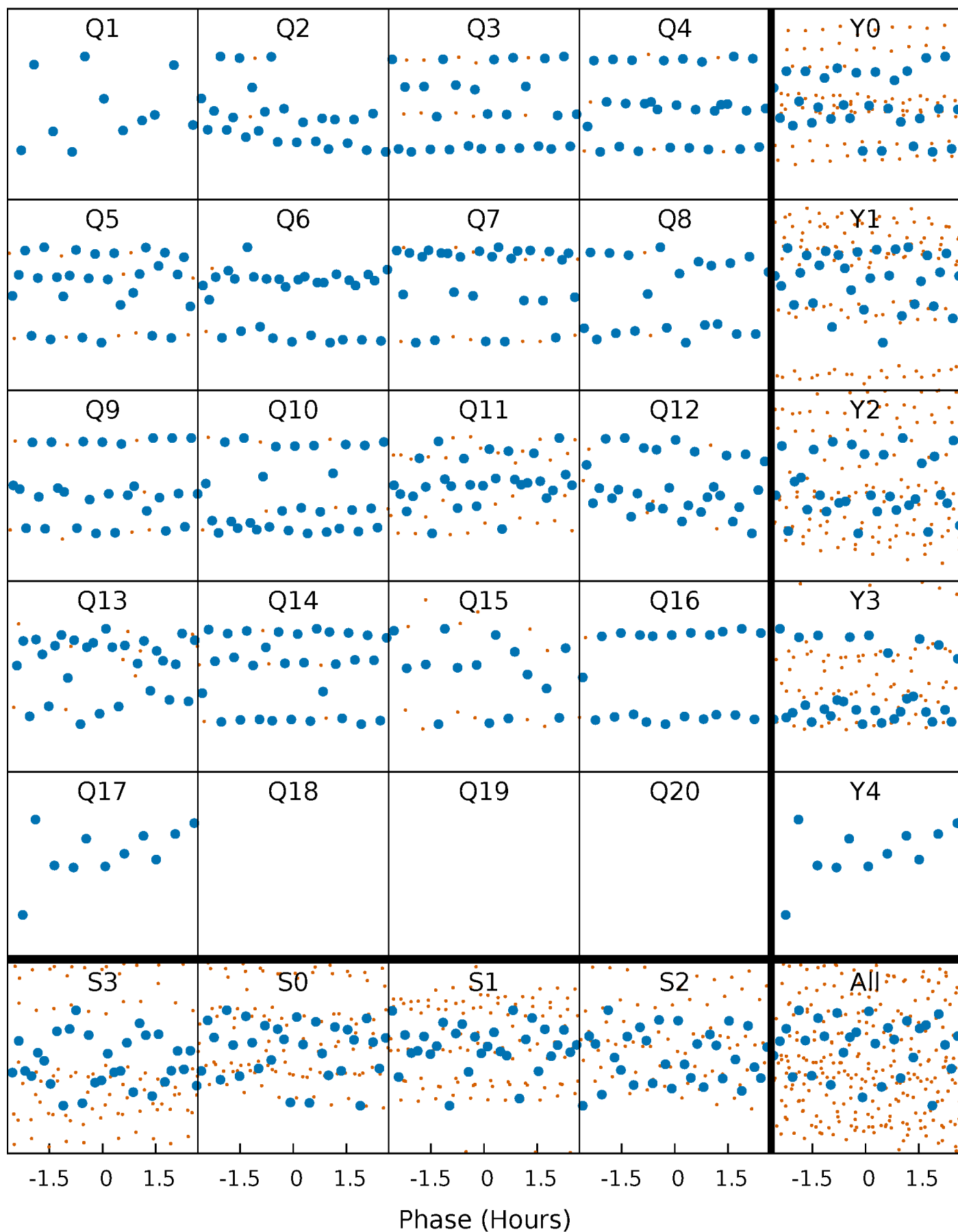


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



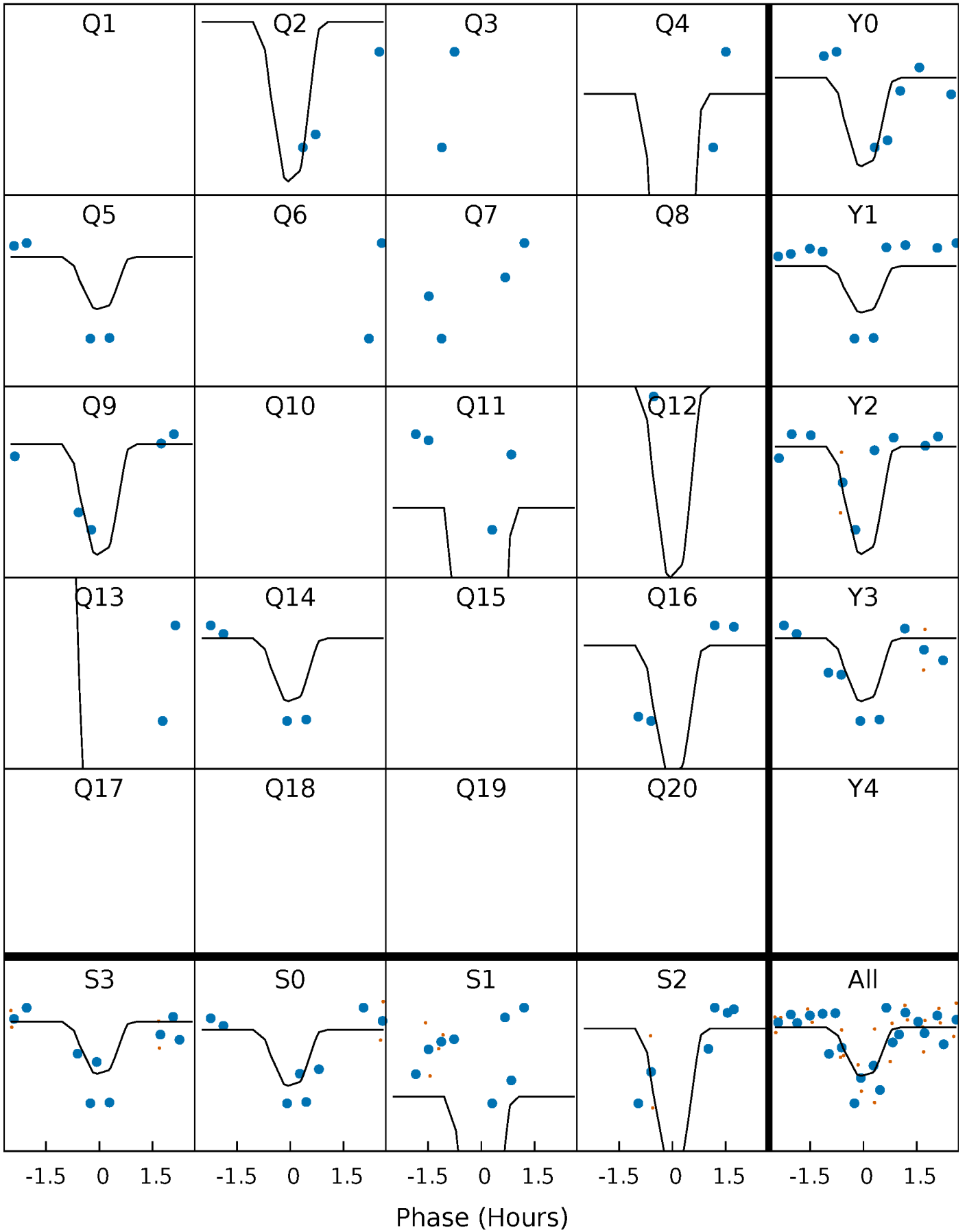
PDC Quarter-Phased Transit Curves

TCE 003648000-02 P= 29.738031 Days $T_0=139.540294$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 003648000-02 P= 29.738031 Days $T_0=139.540294$ (BKJD)

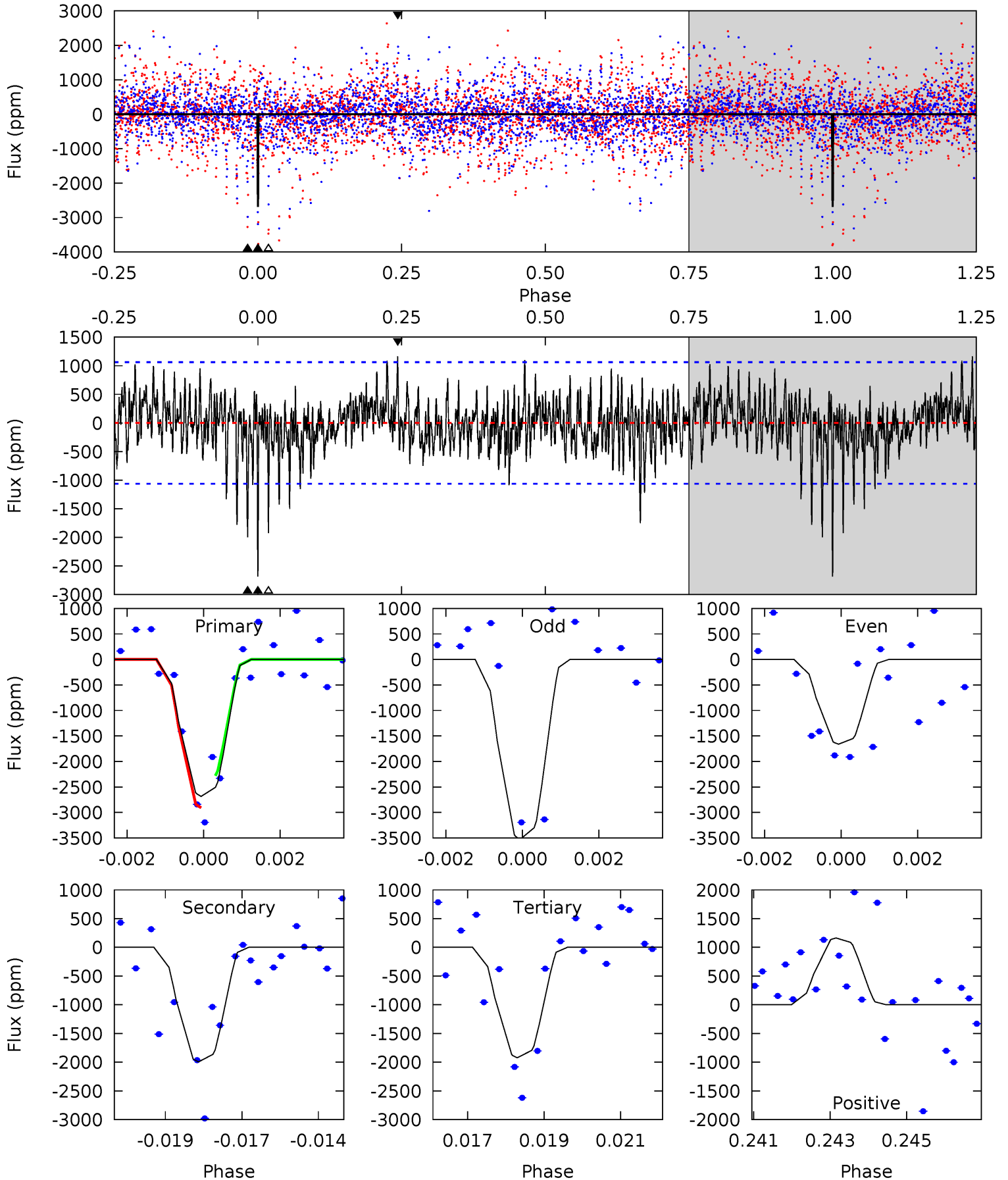


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

003648000-02, P = 29.738031 Days, E = 109.802263 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.4	9.93	9.57	5.79	5.29	3.04	1.89	3.79	7.57	0.36	4.14	4.32	1.09	0.30	1.57



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 003648000

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	4321^{+129}_{-129}	$4.638^{+0.053}_{-0.025}$	$-0.280^{+0.300}_{-0.300}$	$0.616^{+0.045}_{-0.055}$	$0.602^{+0.068}_{-0.049}$	$3.624^{+0.851}_{-0.441}$
	+3%/-3%	+1%/-1%	+107%/-107%	+7%/-9%	+11%/-8%	+23%/-12%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 003648000-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-1995 ± 201	$5.24^{+4.09}_{-3.43}$	522^{+19}_{-17}	3564^{+1733}_{-589}	1039^{+7480}_{-718}
Alt.	N/A	N/A	N/A	N/A	N/A

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming A=0.3)

A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

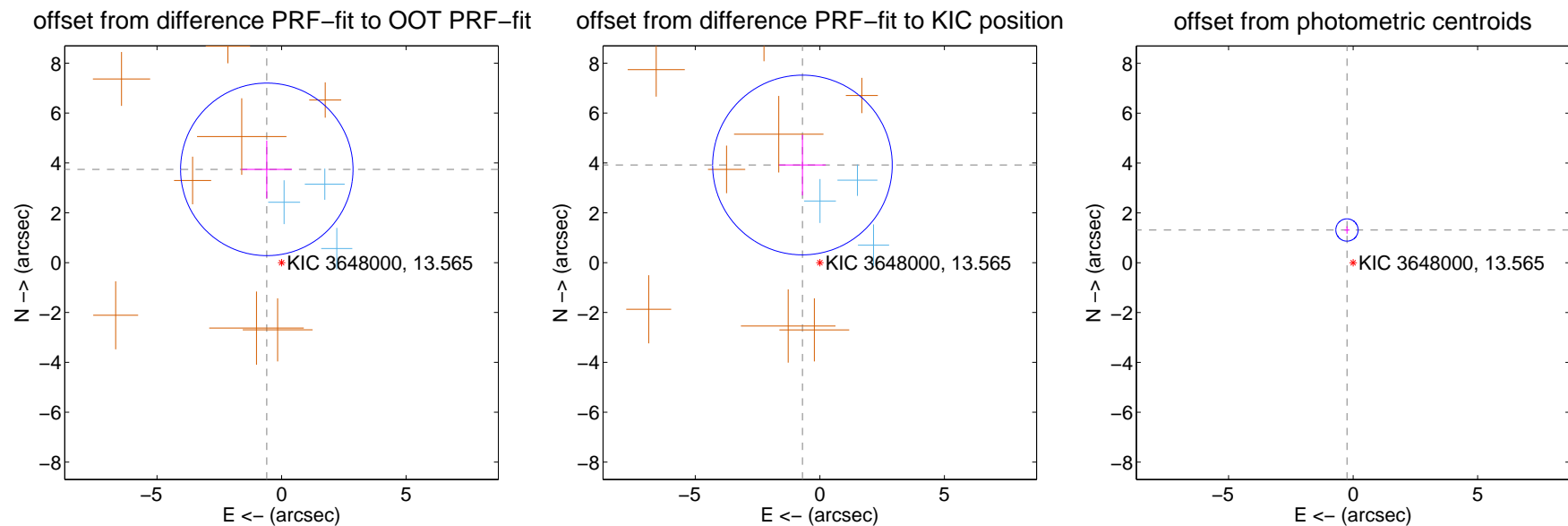
DV Centroid Data

Supplemental centroid analysis for 003648000-02. Kepler magnitude: 13.56. Transit SNR 11.58

There are 3 quarters with good PRF difference image offsets

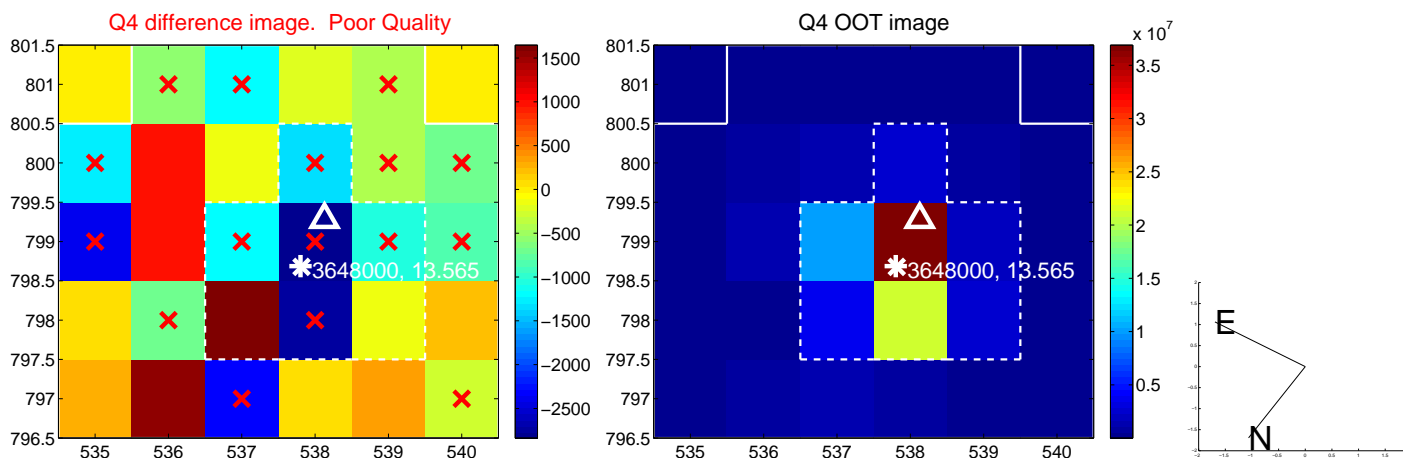
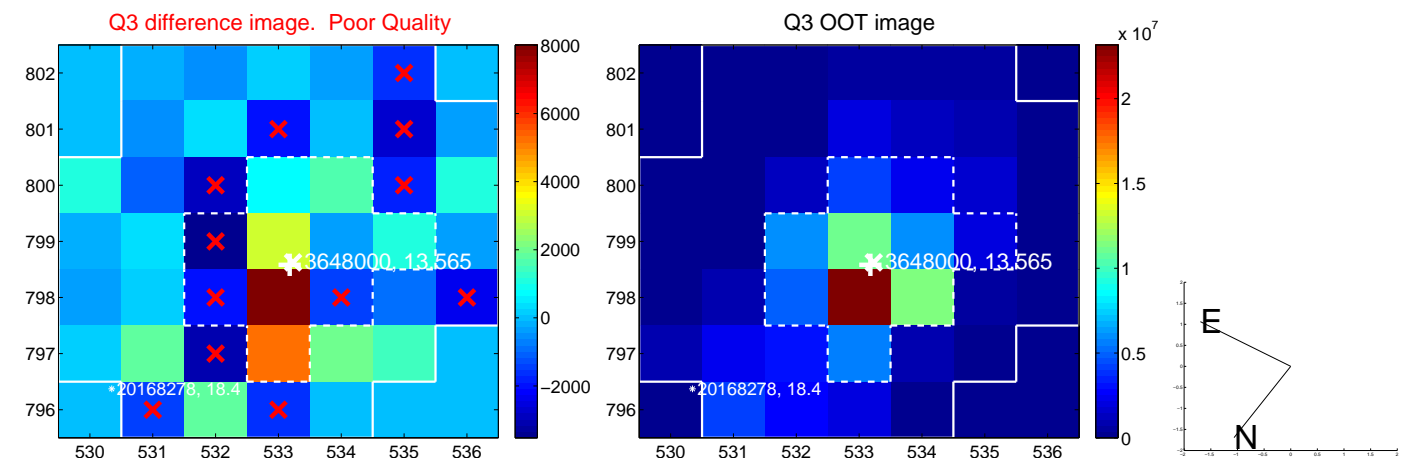
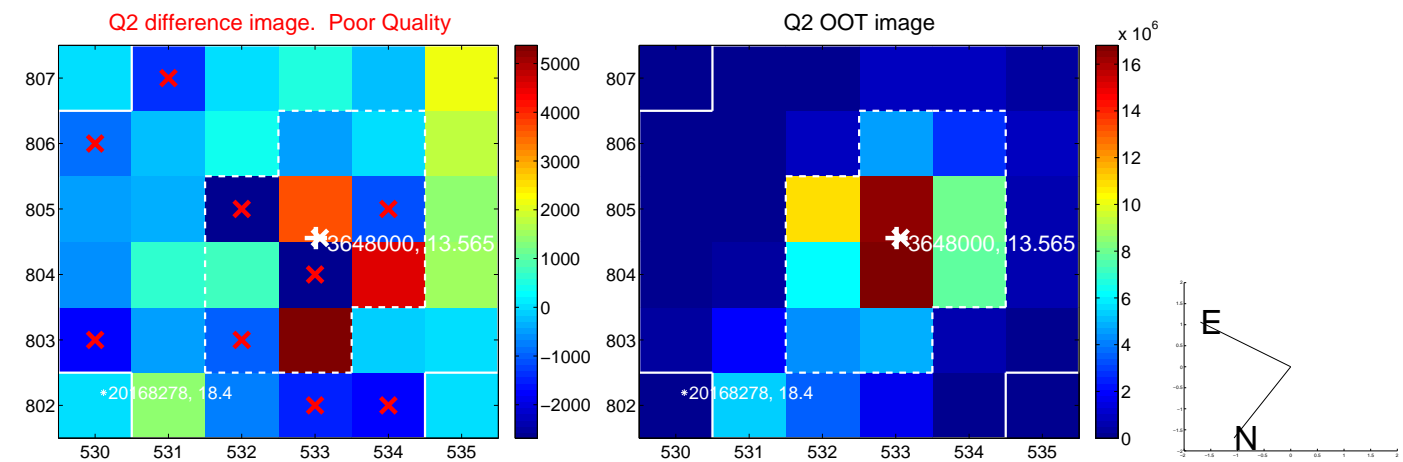
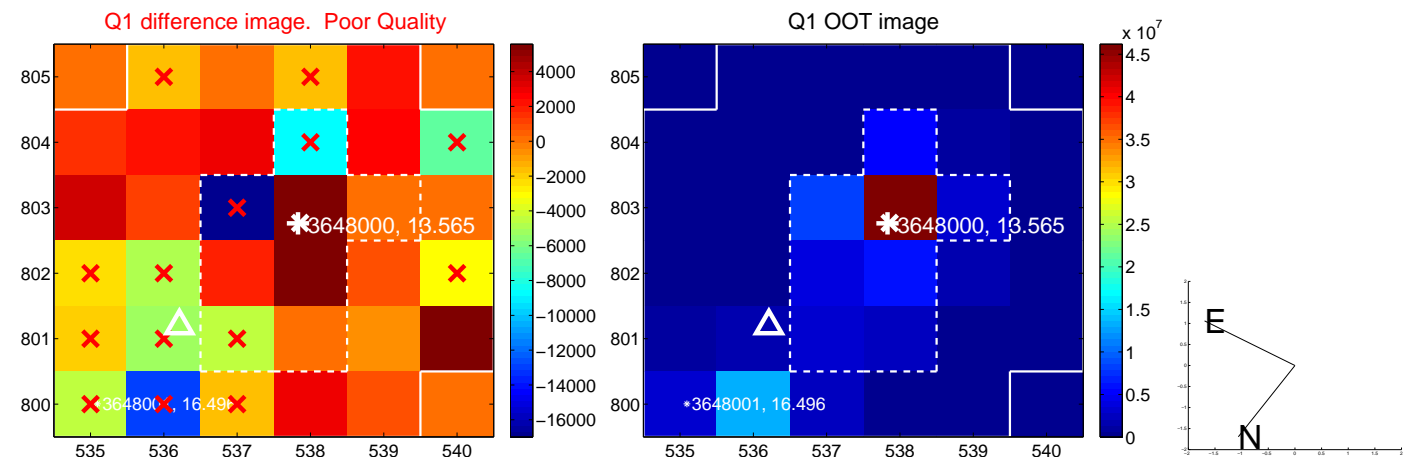
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.787 ± 1.153	3.28	0.593 ± 1.011	3.740 ± 1.156
PRF-fit source offset from KIC position	3.977 ± 1.201	3.31	0.698 ± 0.934	3.915 ± 1.216
photometric centroid source offset	1.34 ± 0.15	8.94	0.25 ± 0.11	1.31 ± 0.15

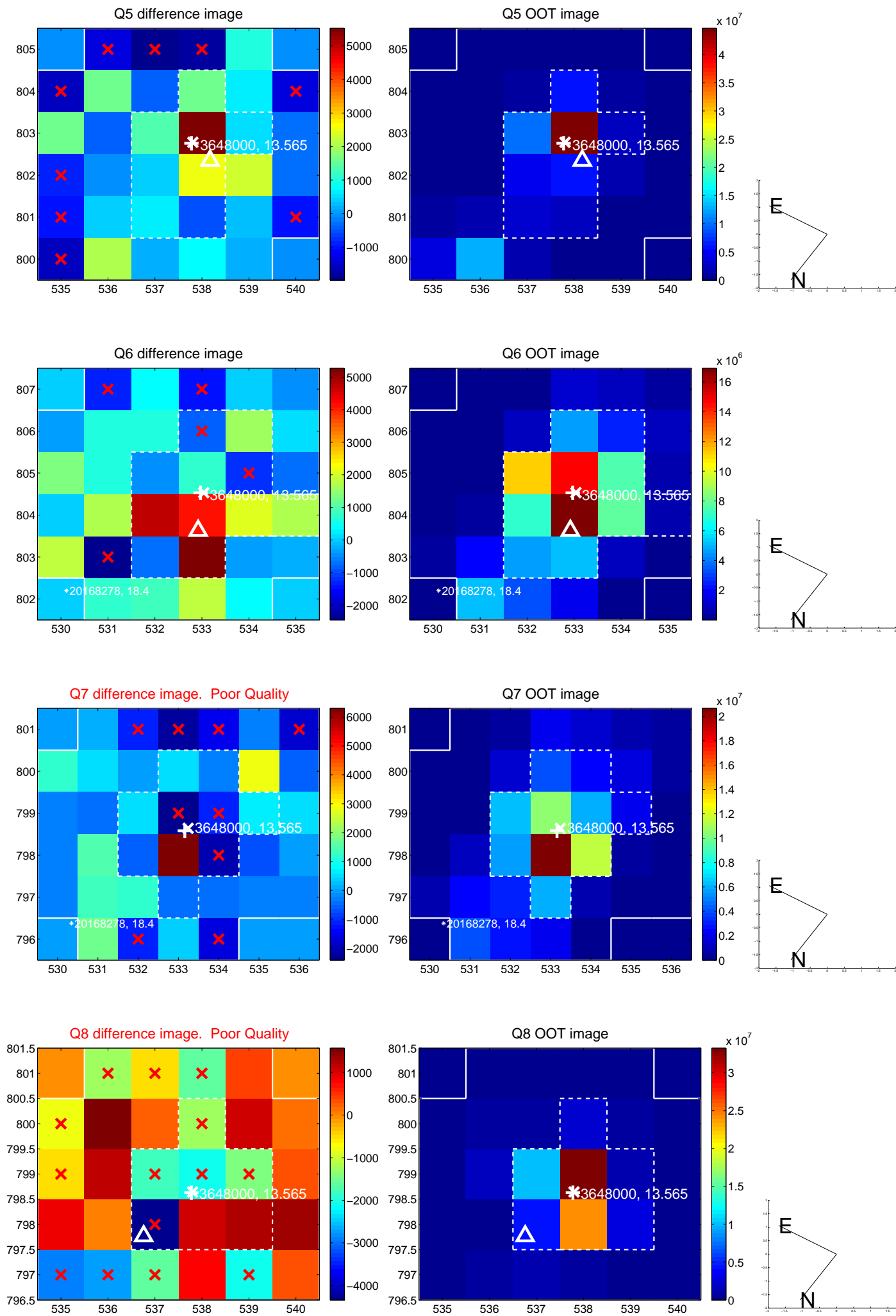


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

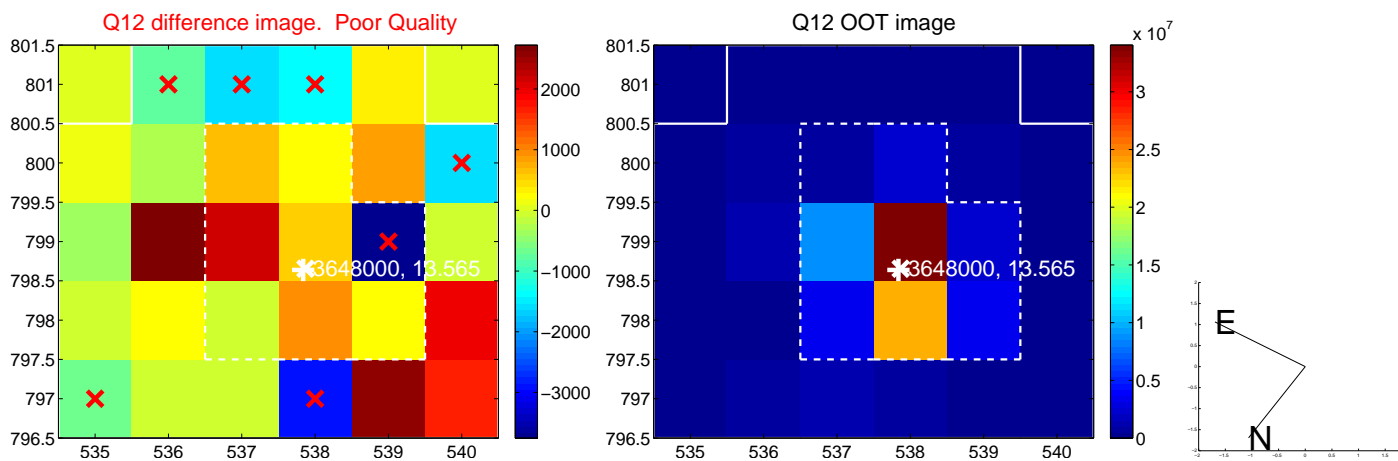
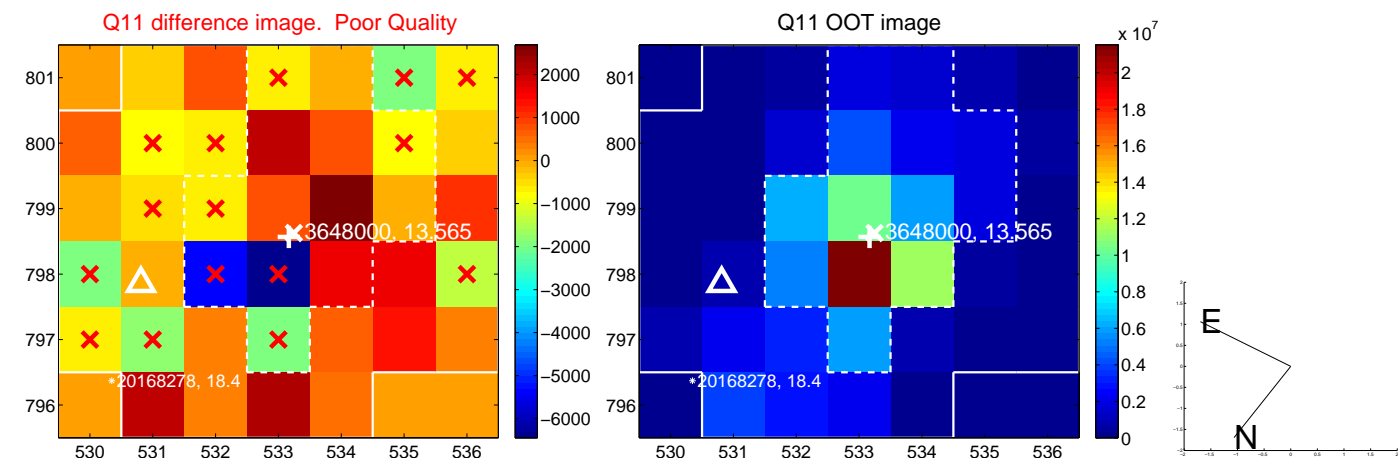
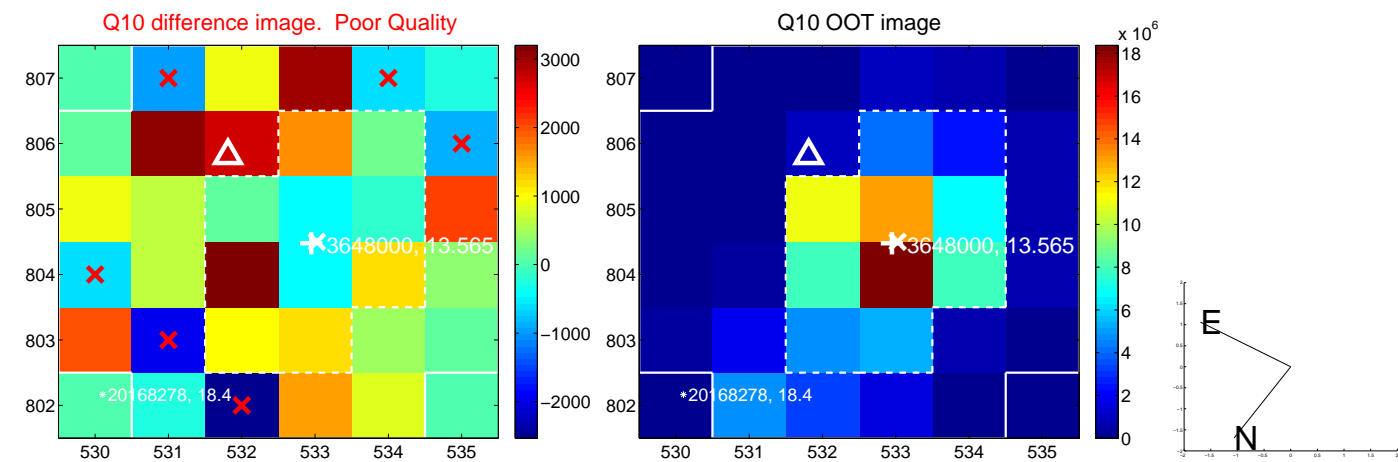
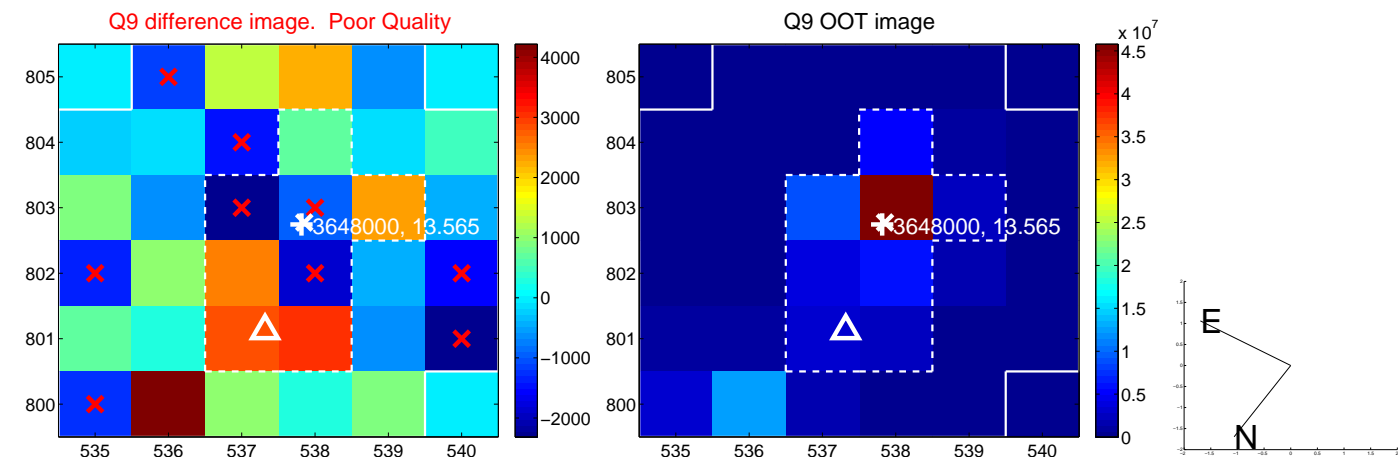
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



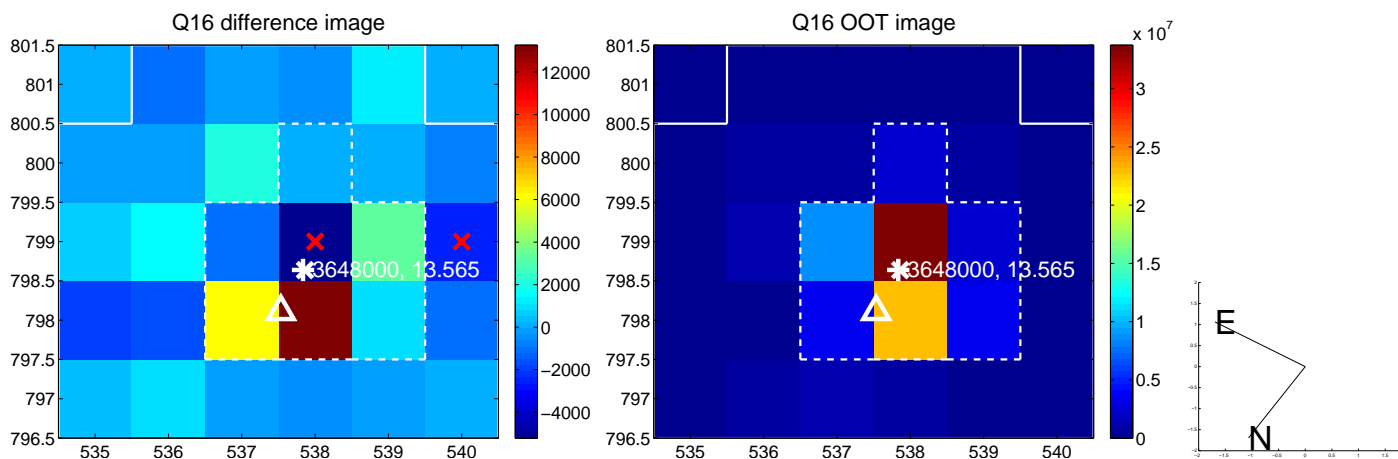
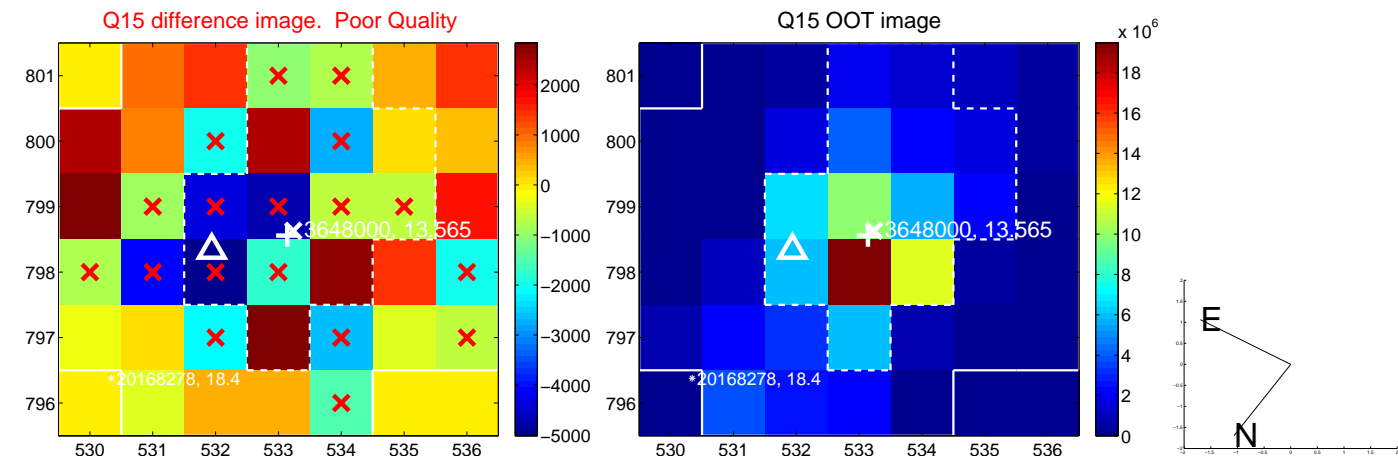
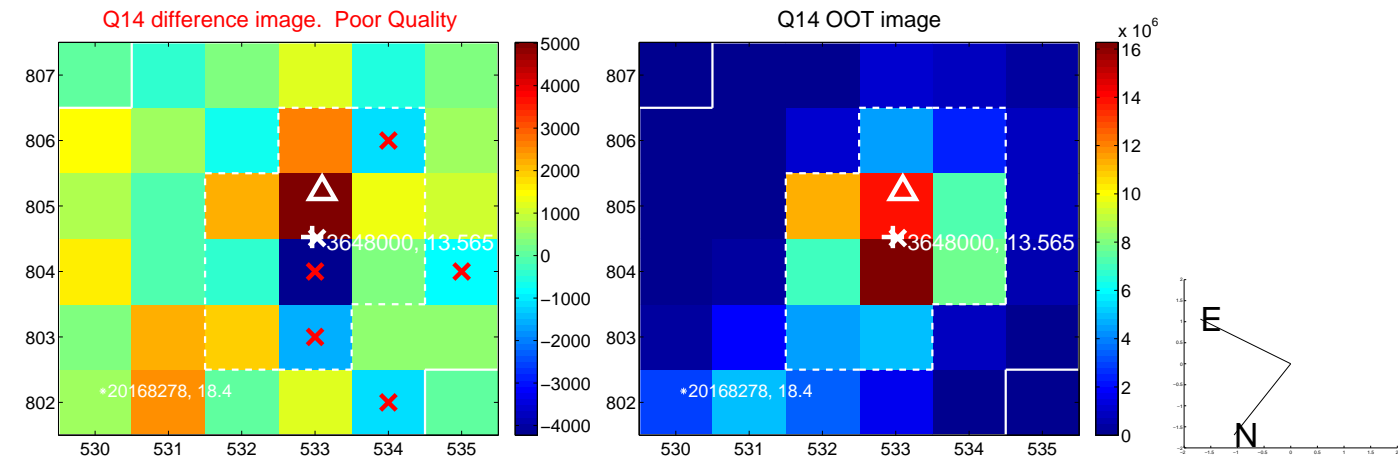
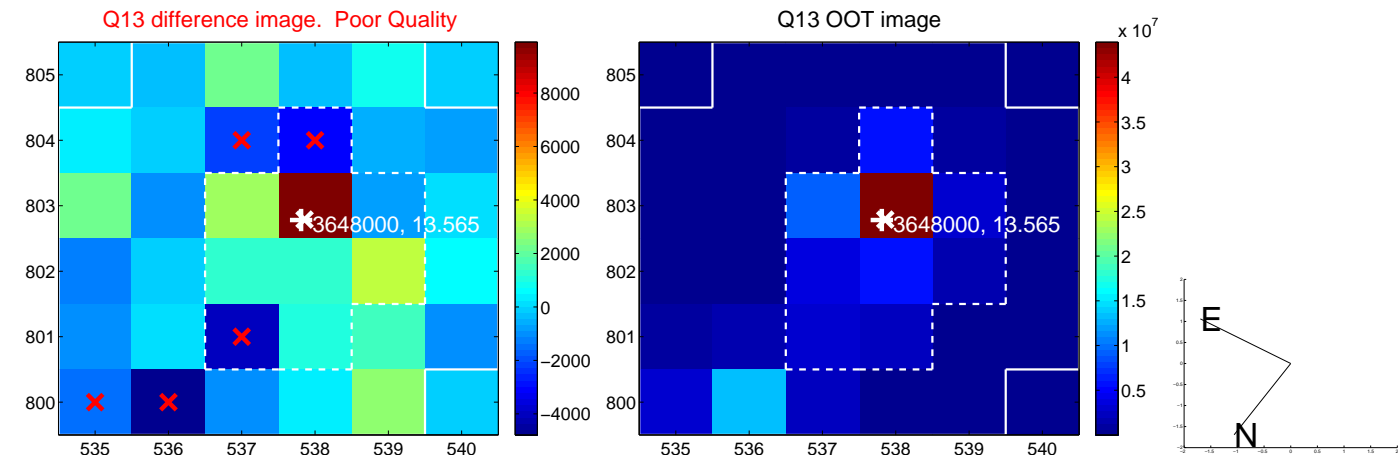
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



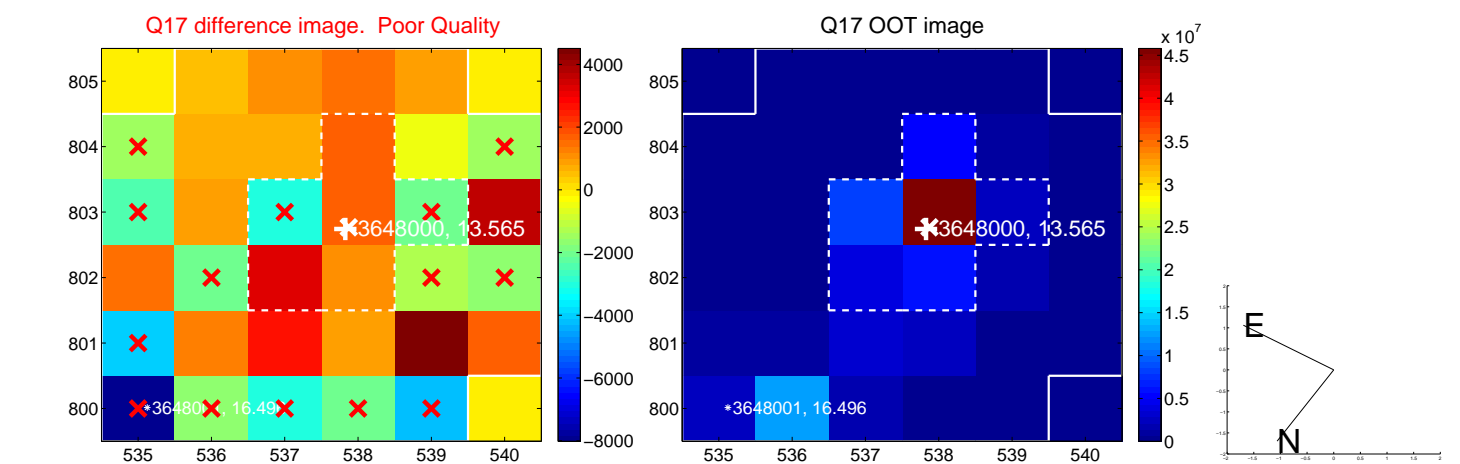
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



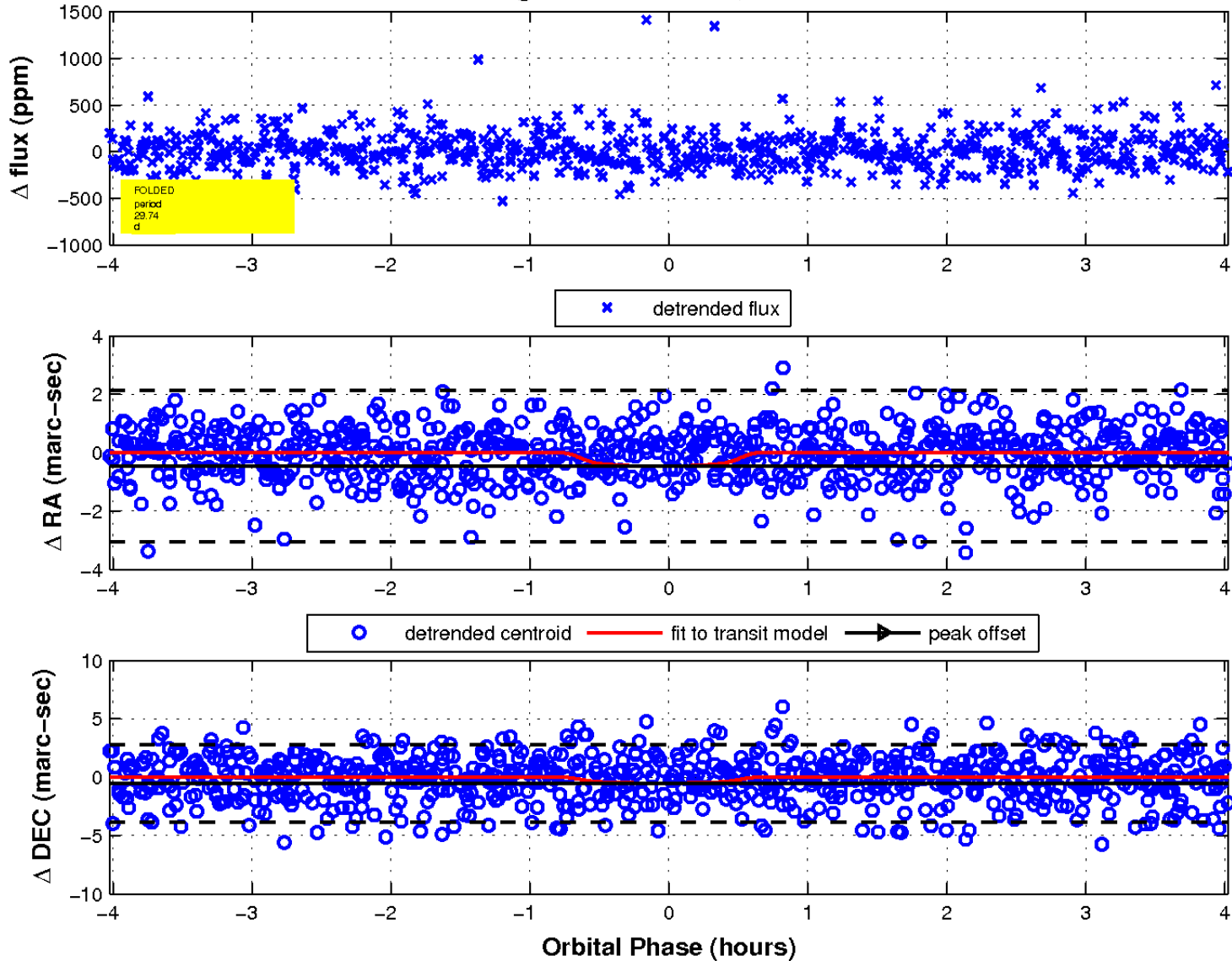
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

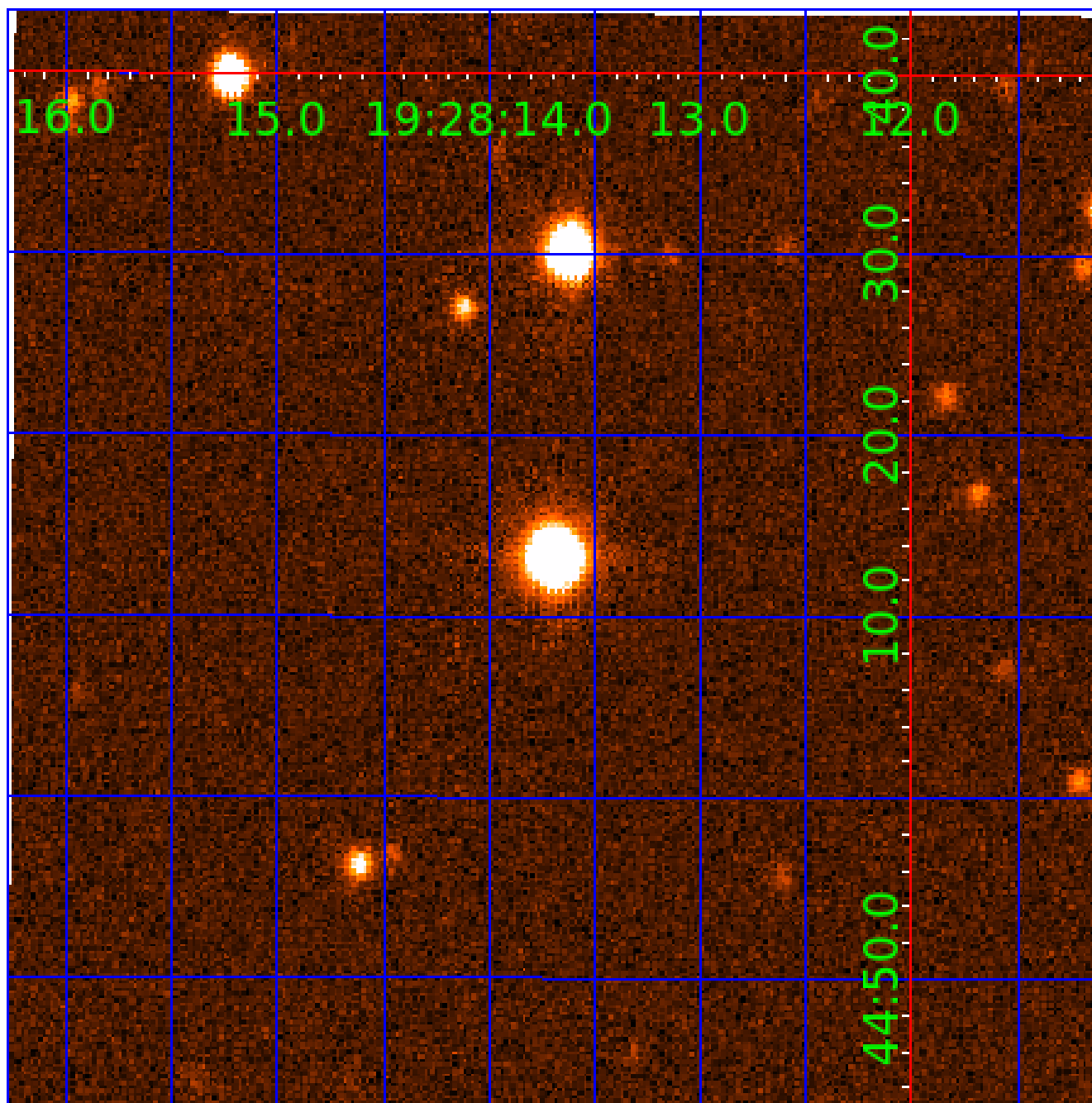


fluxWeightedCentroids, Planet 2 of 6



UKIRT Image

Declination



KIC 003648000

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
003648000-01	OBS	No	0.542462	132.038973	18.1	3.869	8.0	8.8	0.62	4321	0.28	981.28
003648000-02	OBS	No	29.738031	139.540294	2437.5	1.344	13.6	11.6	0.62	4321	3.41	4.71
003648000-03	OBS	No	14.128733	131.601366	1439.6	1.631	12.7	7.6	0.62	4321	2.63	12.71
003648000-04	OBS	No	16.221431	138.973408	1594.2	0.577	11.9	8.0	0.62	4321	2.58	10.57
003648000-06	OBS	No	23.662131	145.945372	939.3	1.500	12.0	-1.0	0.62	4321	1.84	6.39

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003648000-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_FEW_DIFFS
003648000-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—CENT_UNCERTAIN—HALO_GHOST
003648000-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_MEAS
003648000-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—CENT_FEW_DIFFS
003648000-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_NOFITS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

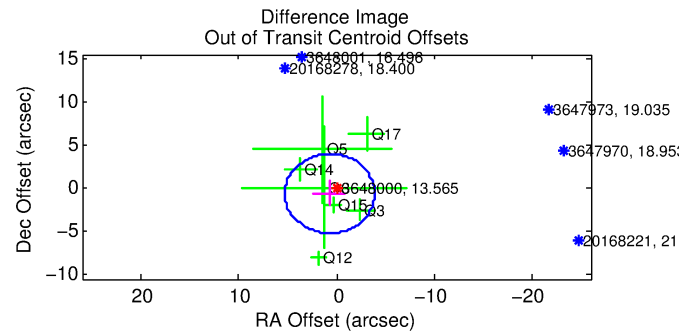
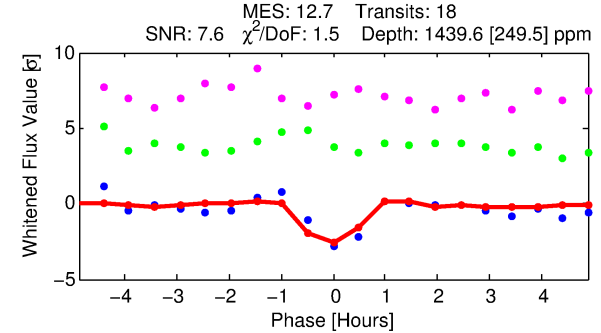
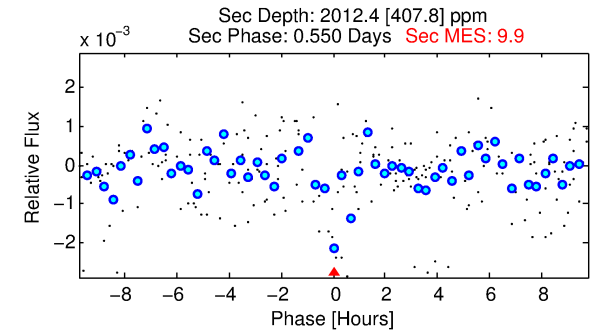
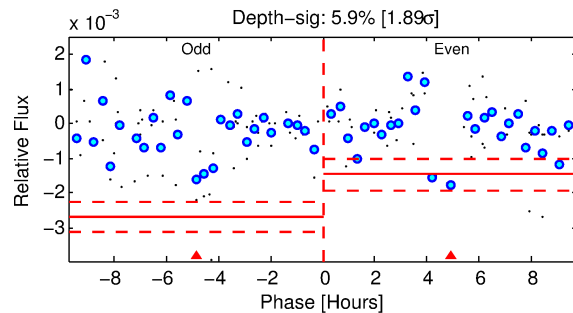
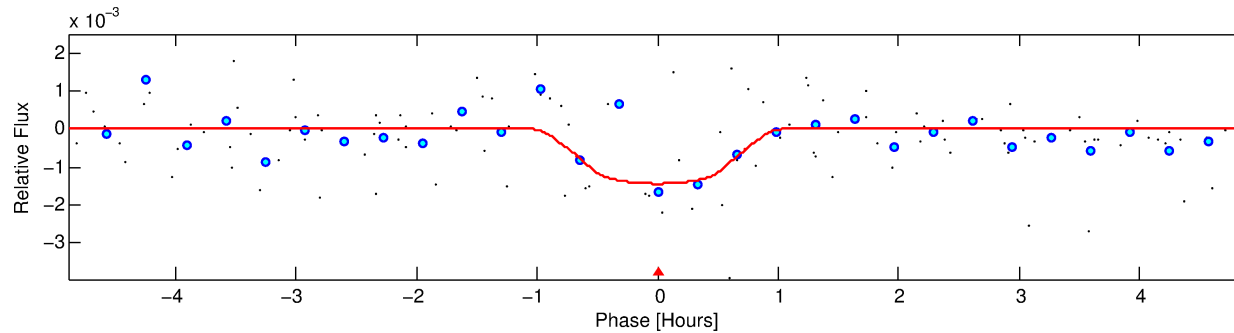
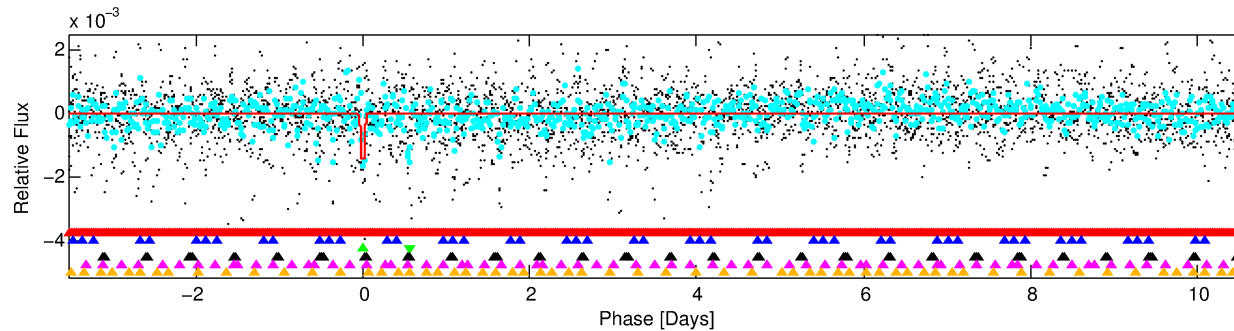
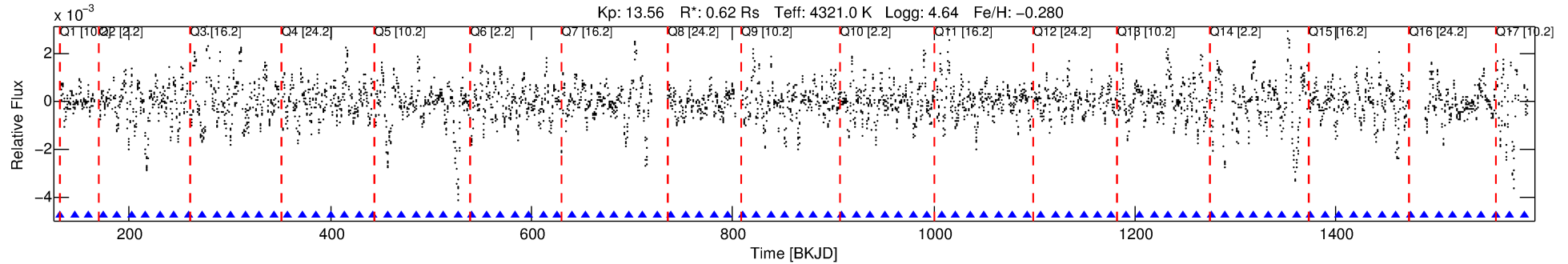
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003648000-03

No Significant Match Found

DV One-Page Summary

KIC: 3648000 Candidate: 3 of 6 Period: 14.129 d



DV Fit Results:

Period = 14.12873 [0.00011] d
Epoch = 131.6014 [0.0054] BKJD
Rp/R* = 0.0392 [0.0643]
a/R* = 43.97 [251.61]
b = 0.80 [2.68]
Seff = 12.71 [1.99]
Teq = 481 [19] K
Rp = 2.63 [4.33] Re
a = 0.0966 [0.0070] AU
Ag = 1488.87 [4900.83] [0.30 σ]
Teffp = 4624 [3806] K [1.09 σ]

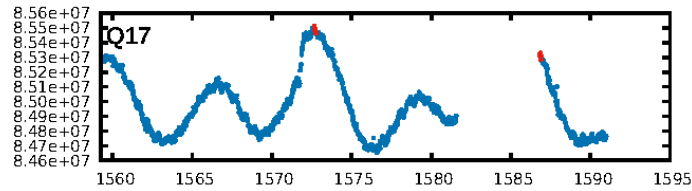
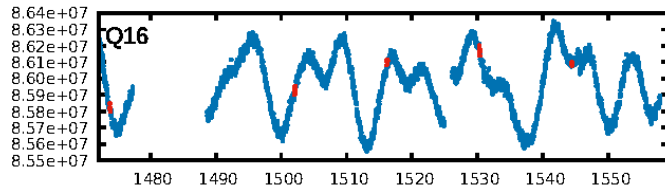
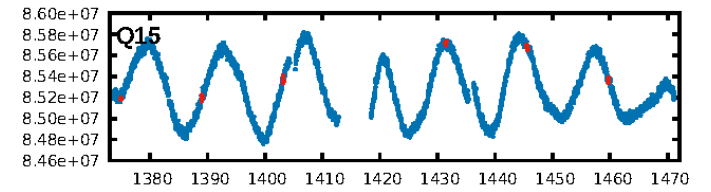
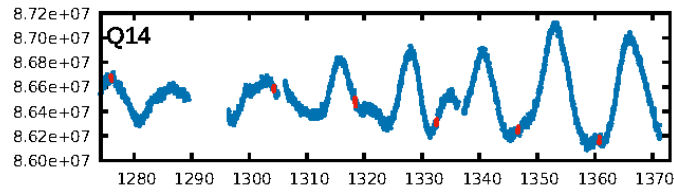
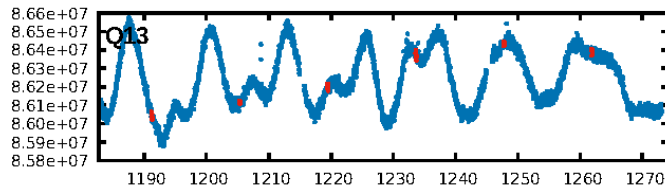
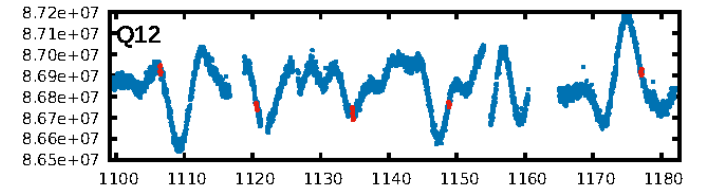
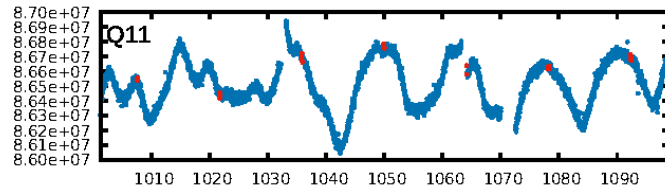
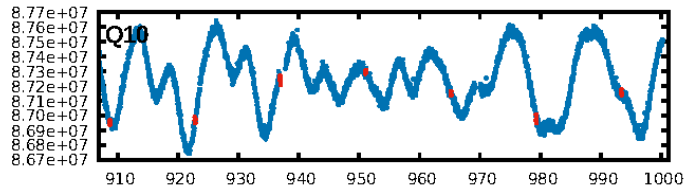
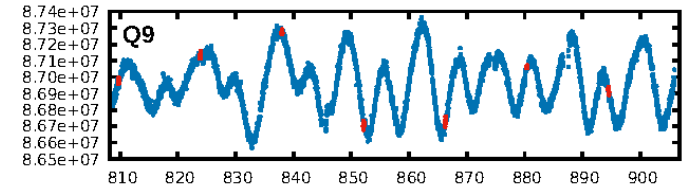
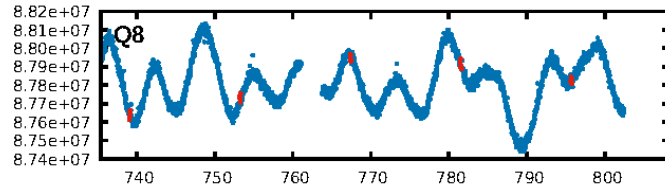
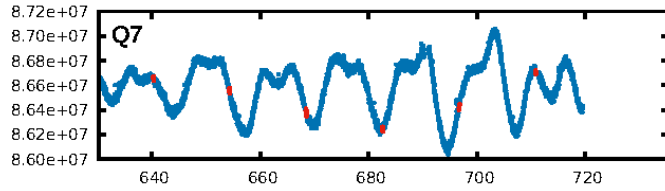
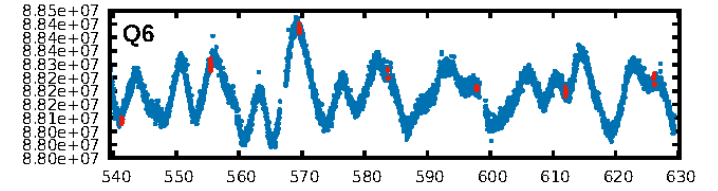
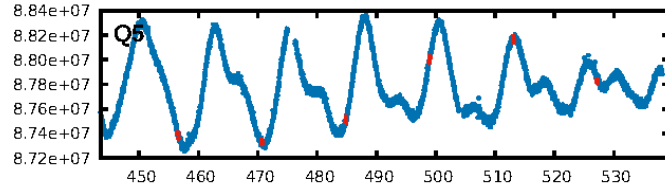
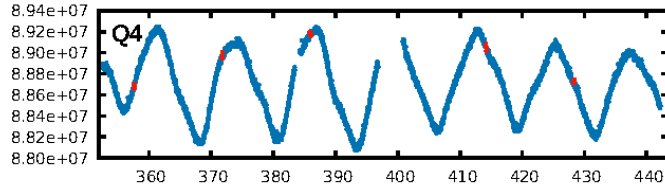
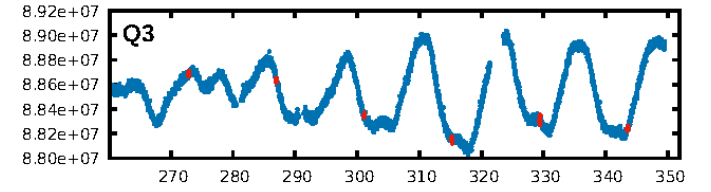
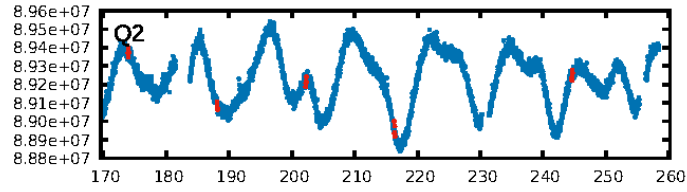
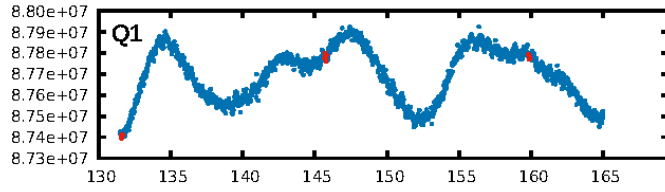
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [77.66 σ]
LongPeriod-sig: 100.0% [29.03 σ]
ModelChiSquare2-sig: 0.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [18/18]
GhostDiagnostic-chr: -0.8574
Centroid-sig: 2.8%
Centroid-so: 0.964 arcsec [6.05 σ]
OotOffset-rm: 0.936 arcsec [0.61 σ]
KicOffset-rm: 0.872 arcsec [0.54 σ]
OotOffset-st: 2/2/1/2 [7]
KicOffset-st: 2/2/1/2 [7]
DiffImageQuality-fgm: 0.14 [1/7]
DiffImageOverlap-fno: 0.00 [0/17]

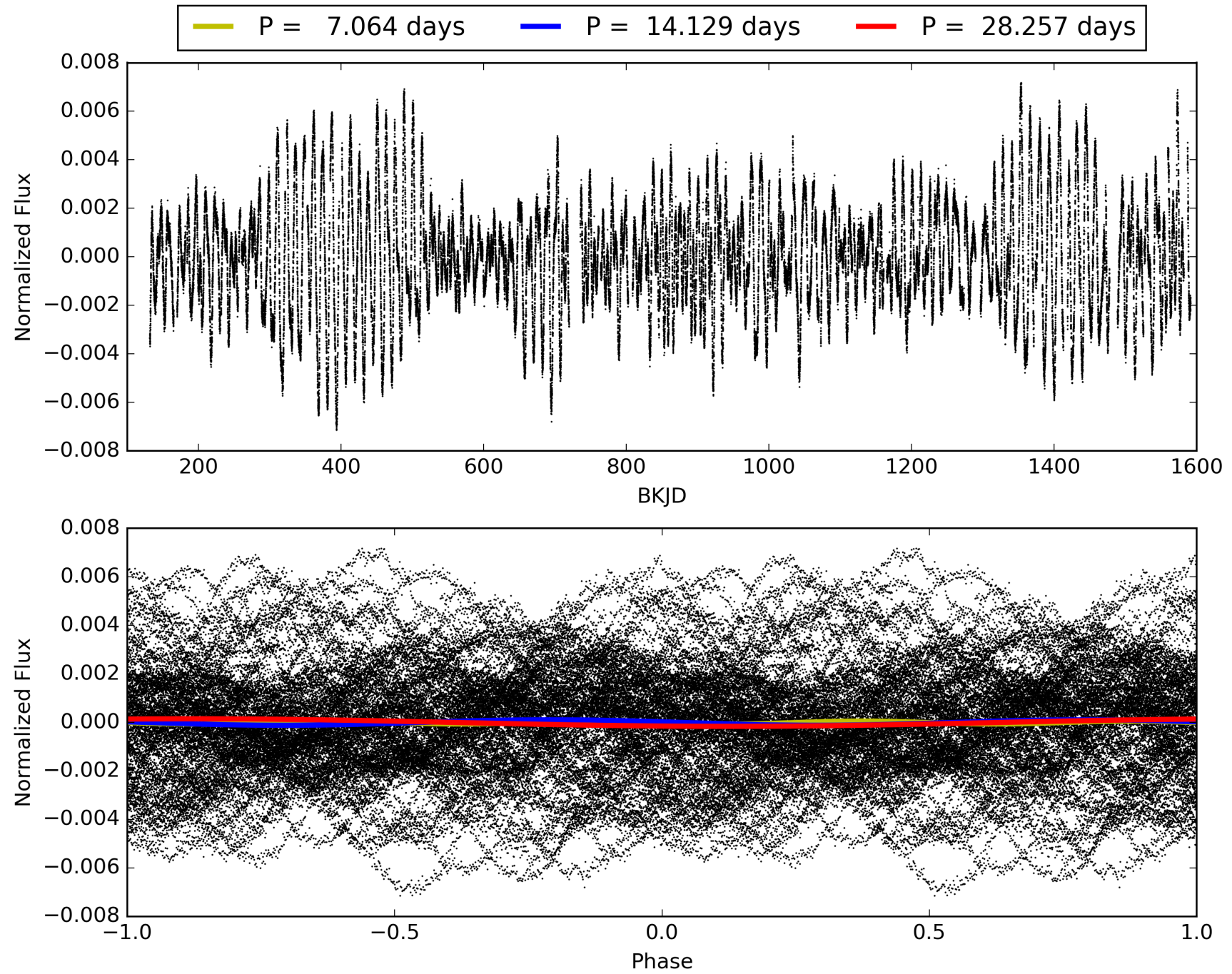
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 06:04:21 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 003648000-03, PDC Light Curves

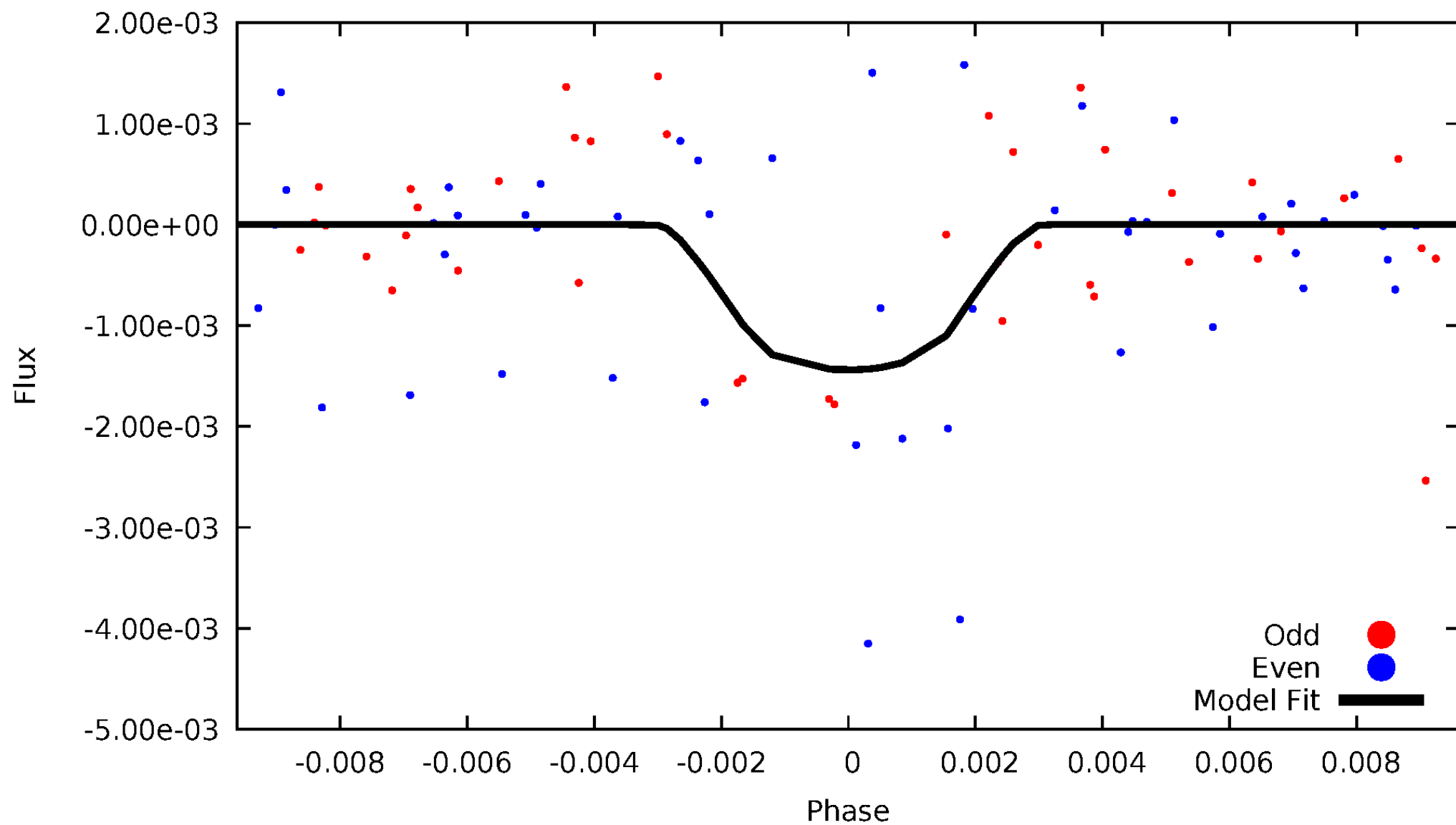


TCE 003648000-03



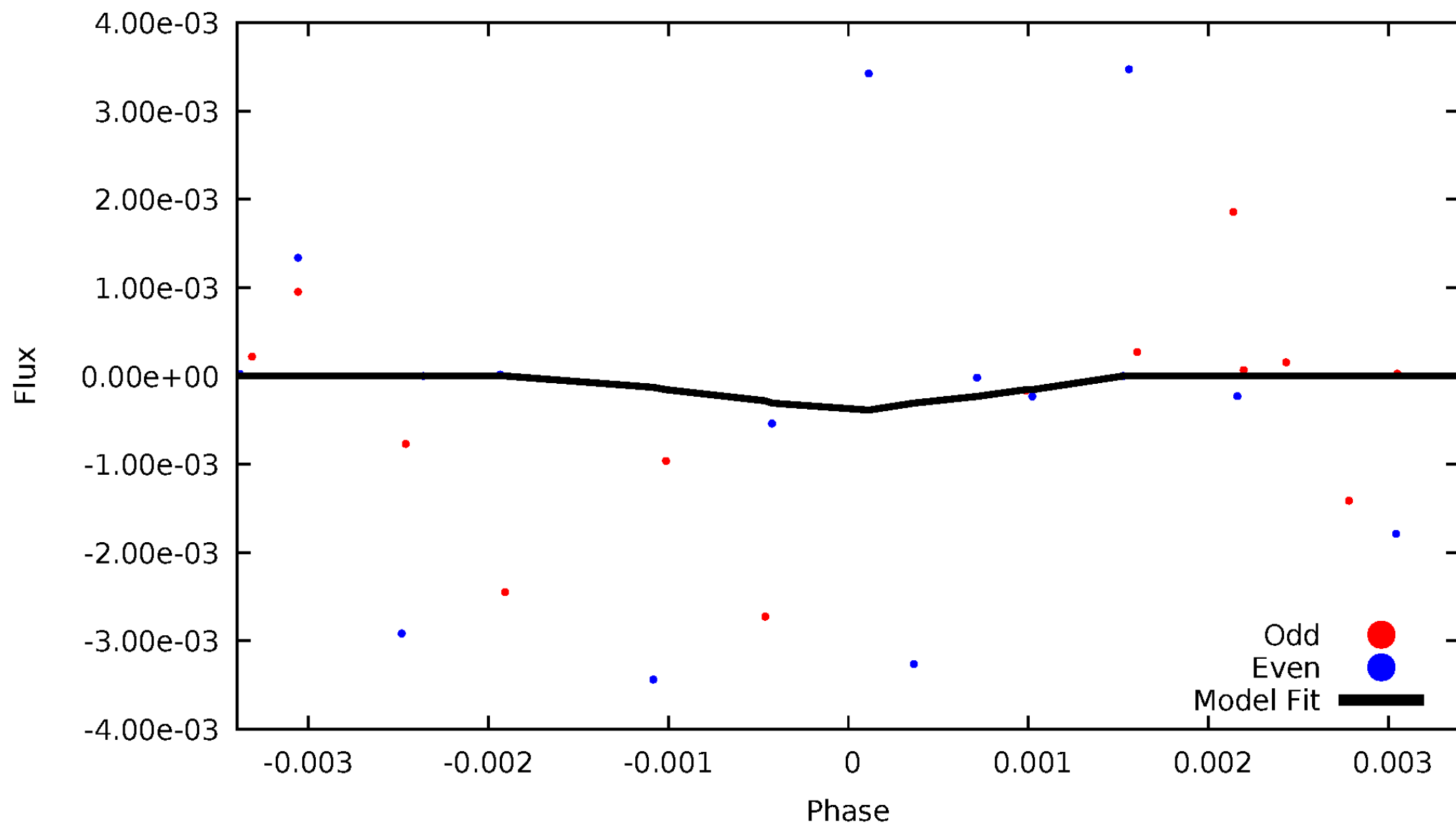
DV Odd/Even

TCE 003648000-03



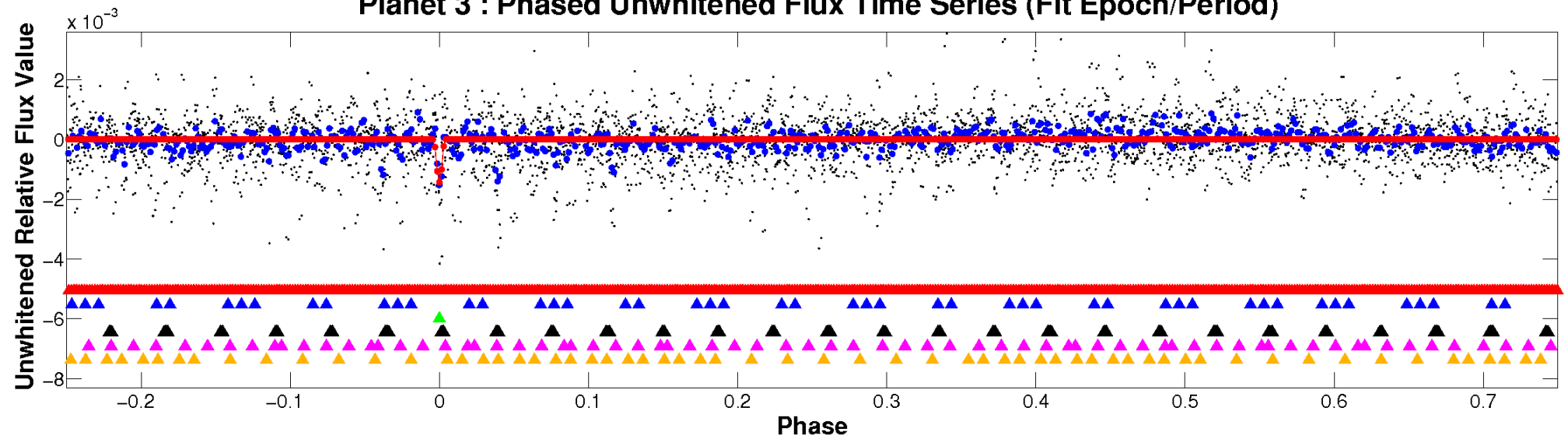
ALT Odd/Even

TCE 003648000-03

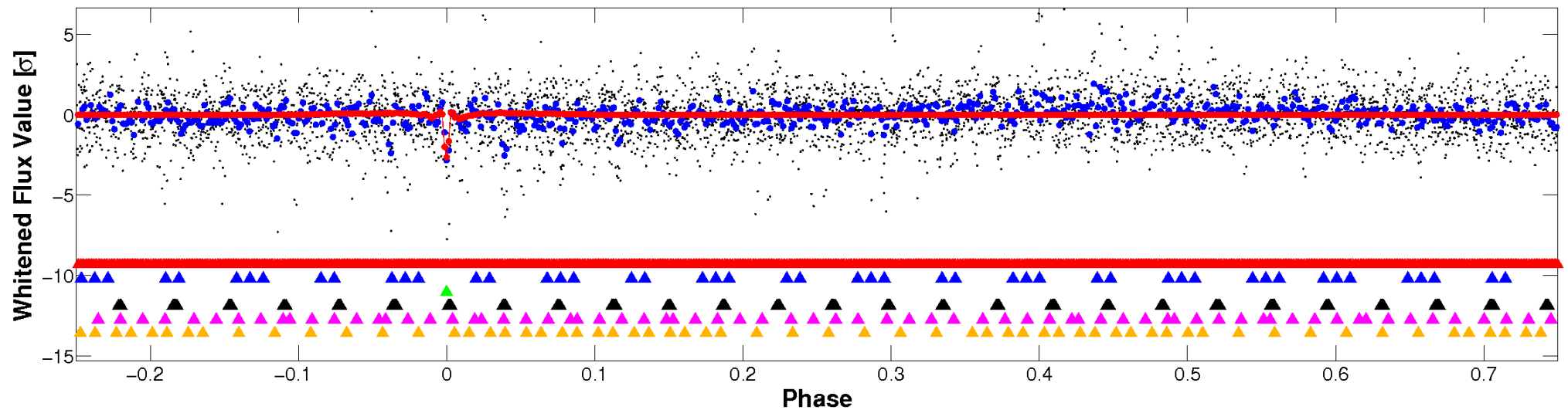


Non-Whitened Vs. Whitened Light Curve

Planet 3 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

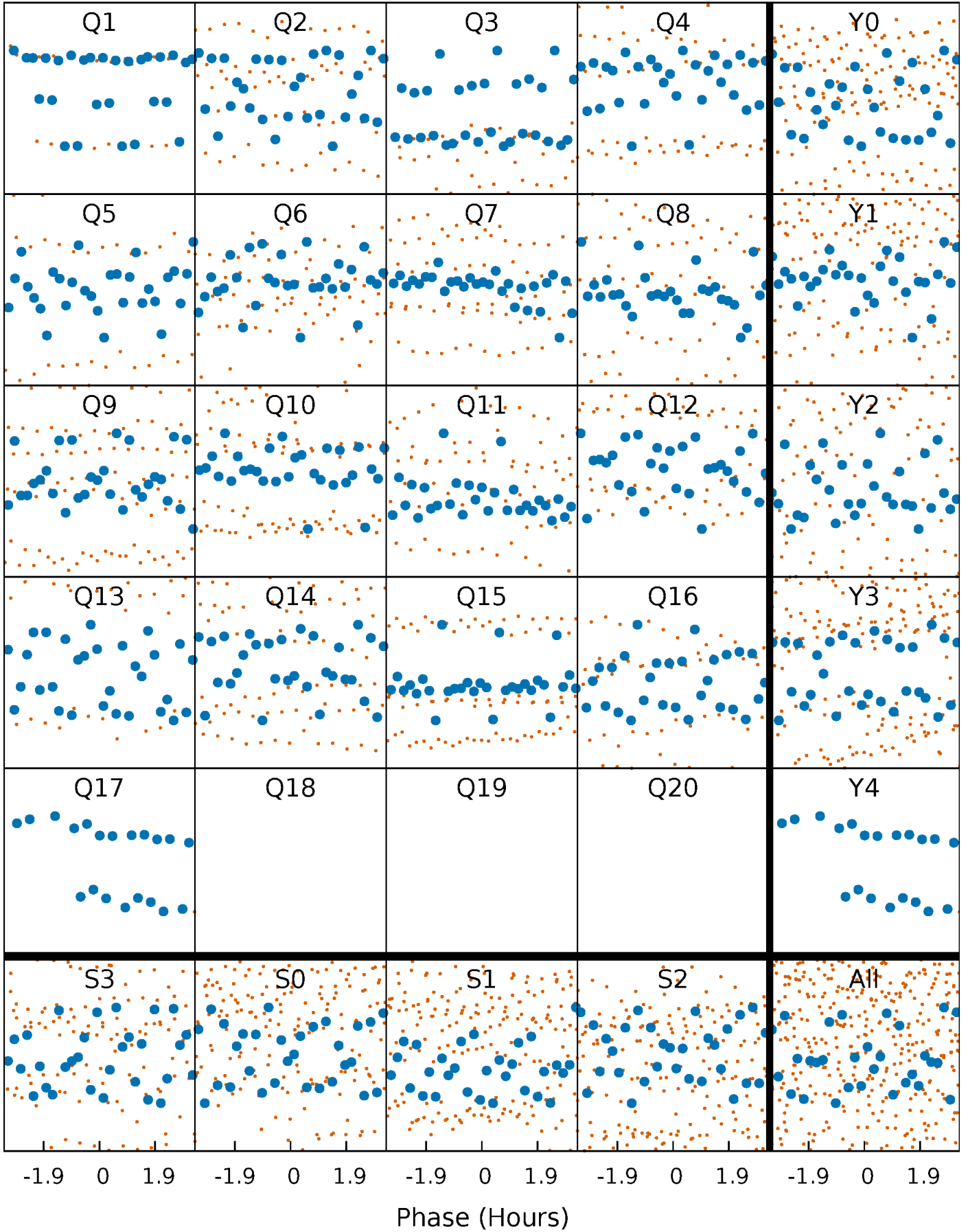


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



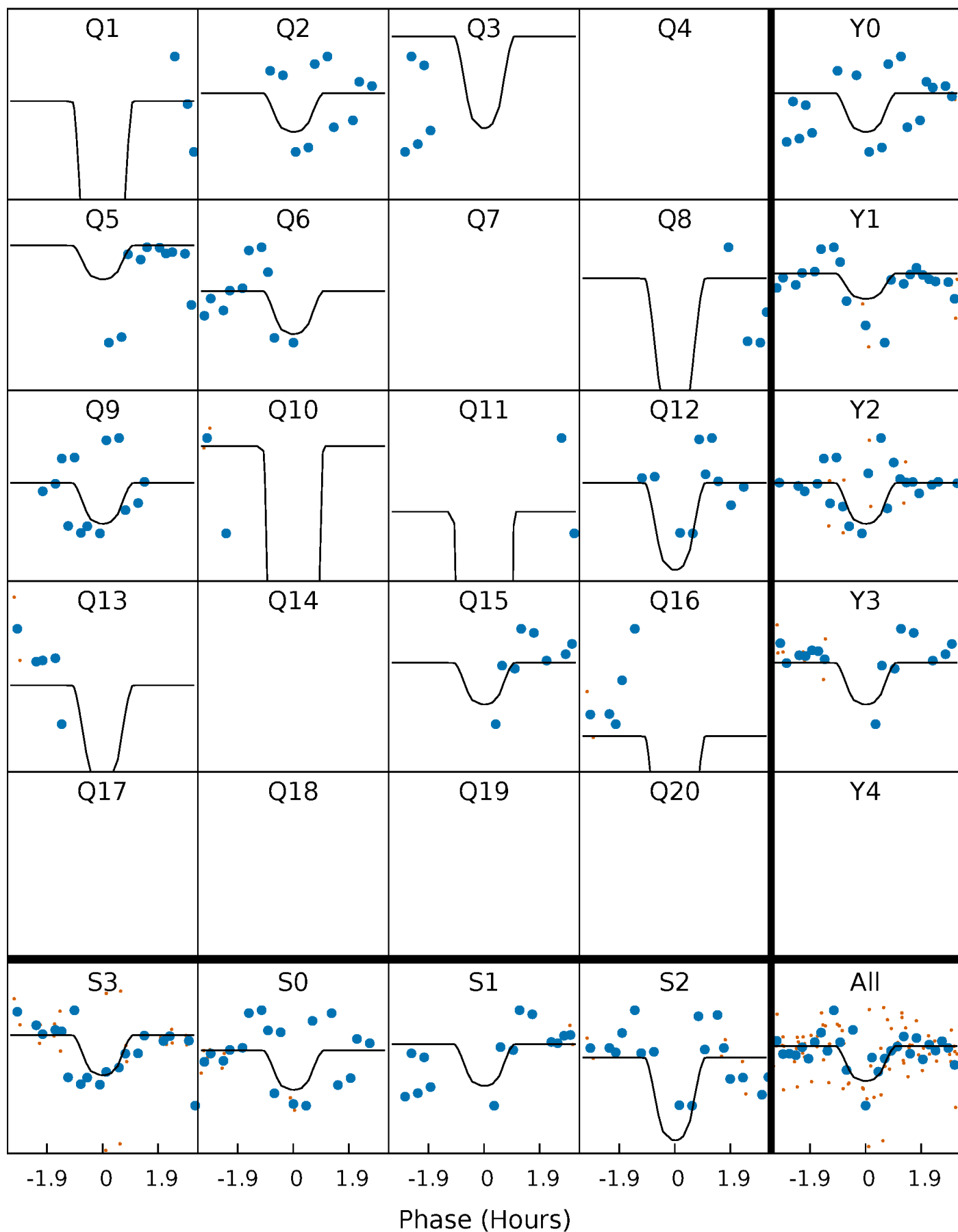
PDC Quarter-Phased Transit Curves

TCE 003648000-03 P= 14.128733 Days $T_0=131.601367$ (BKJD)



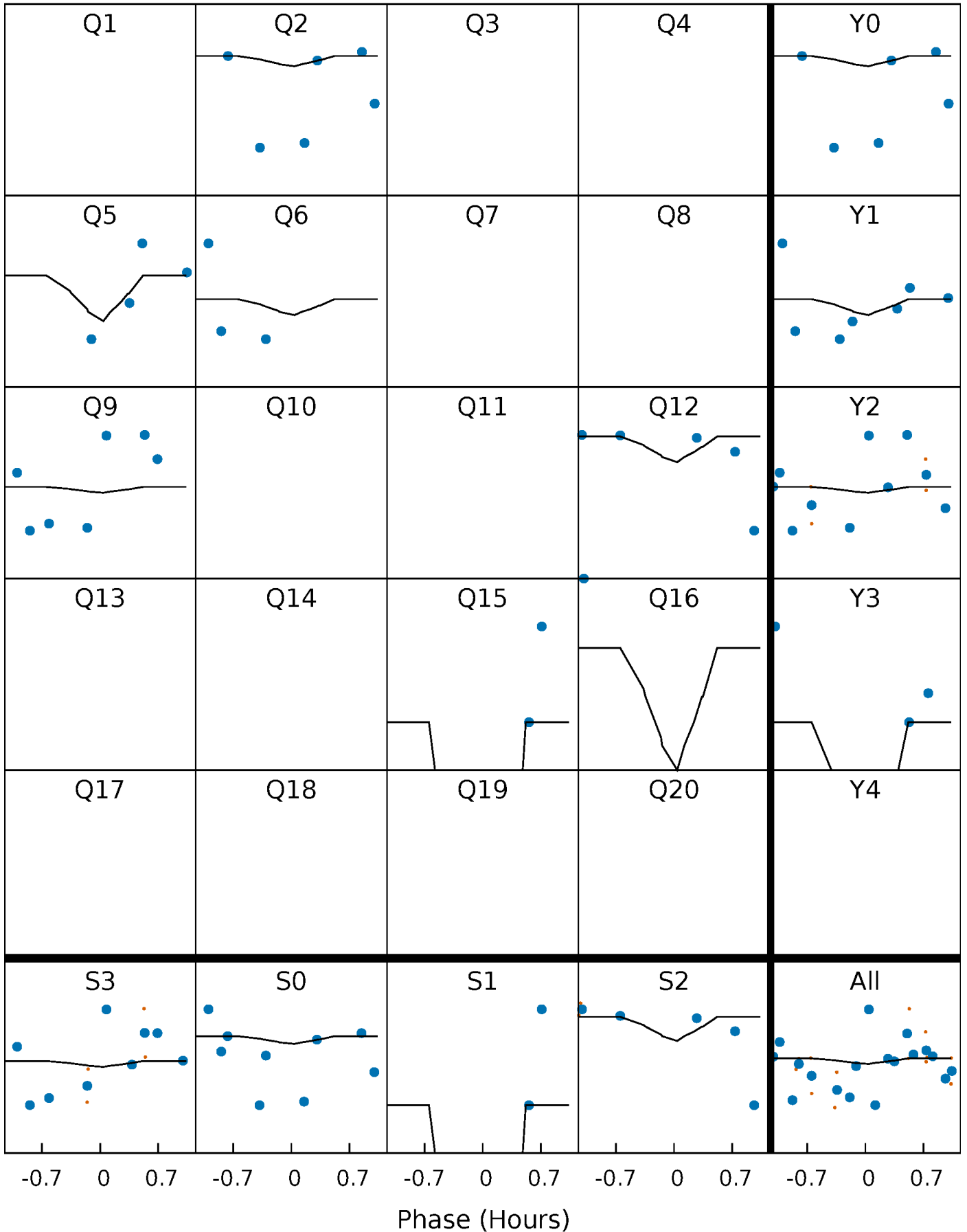
DV Quarter-Phased Transit Curves

TCE 003648000-03 P= 14.128733 Days $T_0=131.601367$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

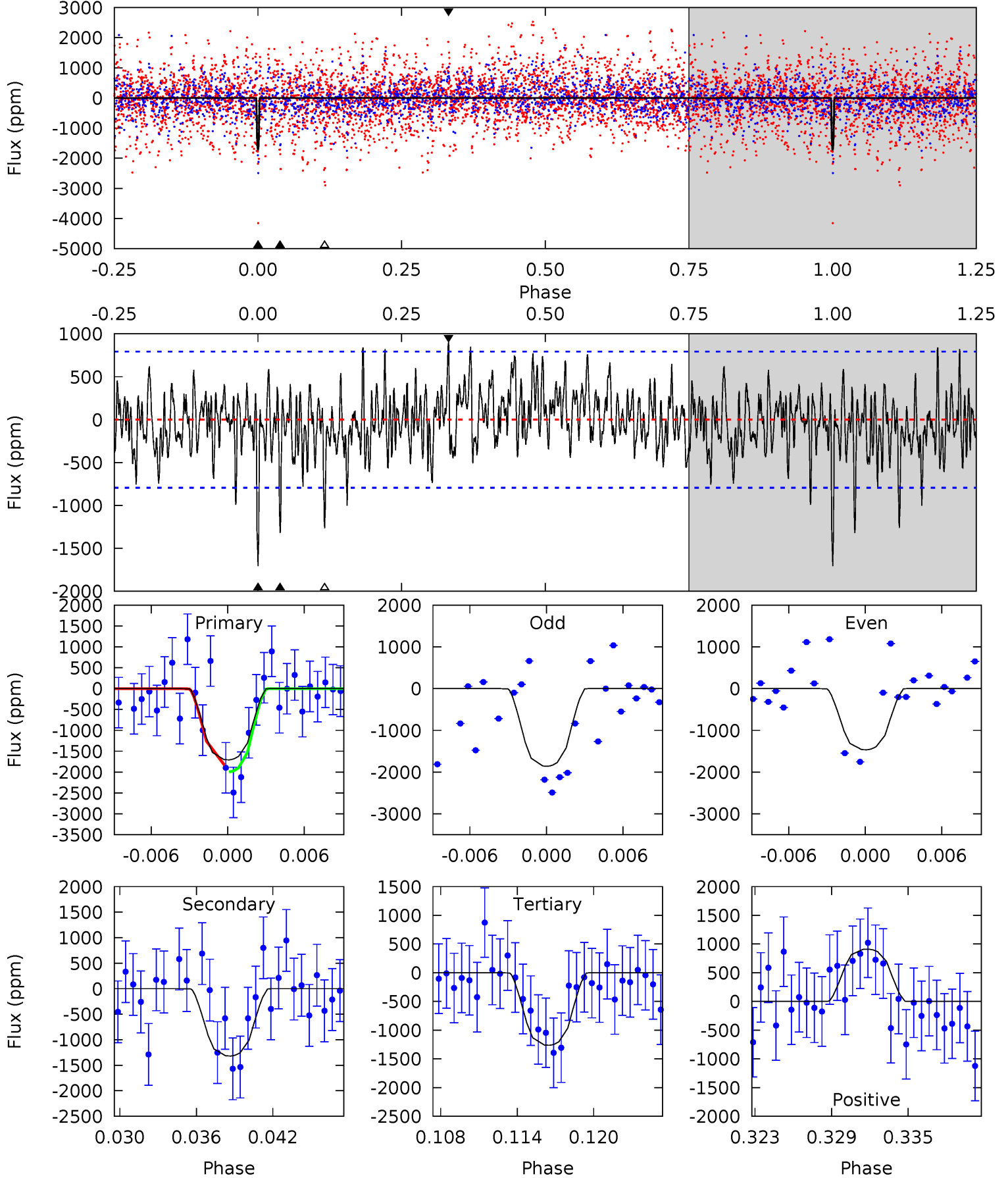
TCE 003648000-03 P= 14.128430 Days $T_0=131.620214$ (BKJD)



DV Model-Shift Uniqueness Test

003648000-03, P = 14.128733 Days, E = 131.601367 Days

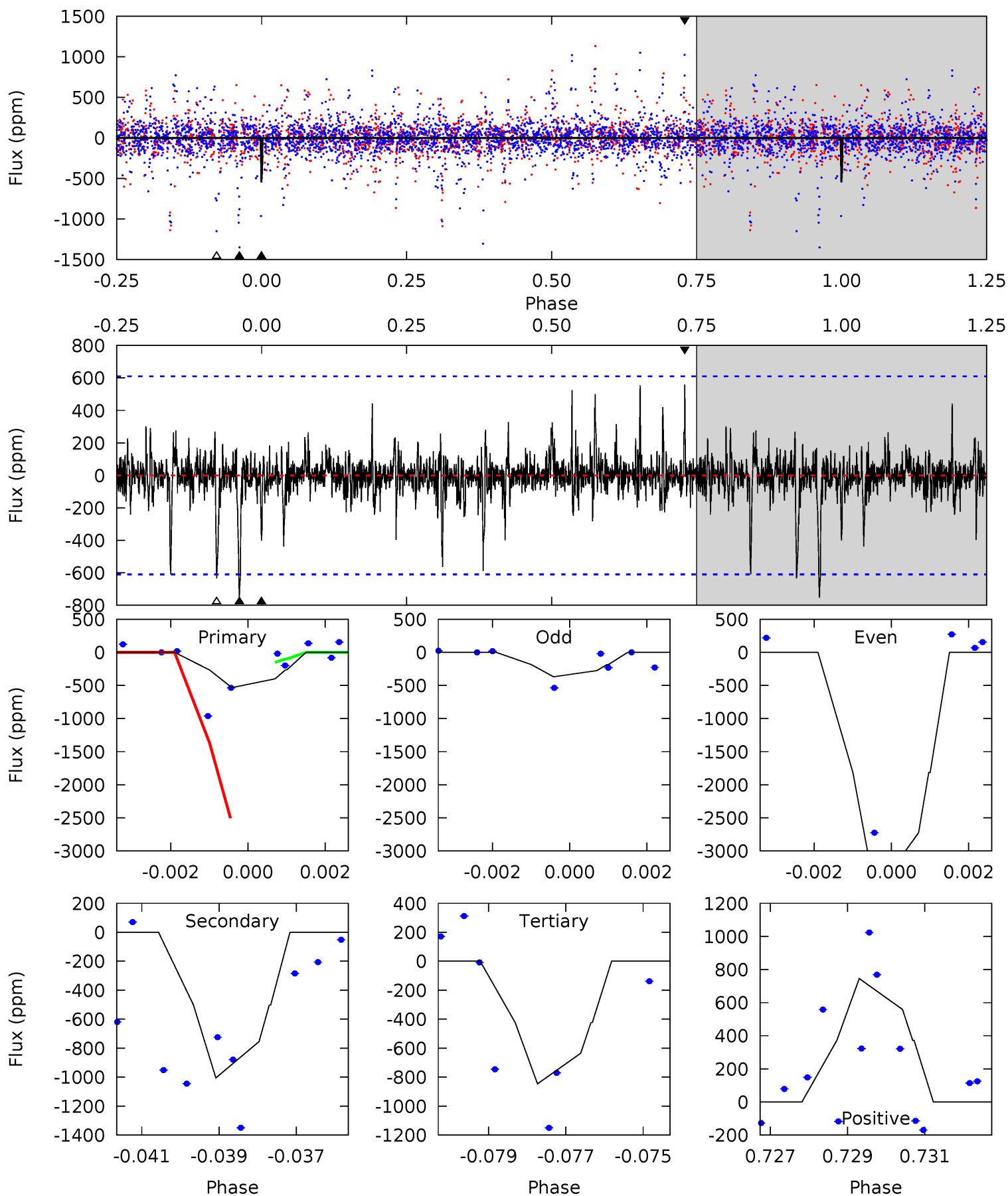
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.0	8.52	8.16	5.89	5.12	2.75	1.92	2.87	5.14	0.36	2.64	1.29	0.81	0.35	0.55



Alt Model-Shift Uniqueness Test

003648000-03, P = 14.128430 Days, E = 131.620214 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.49	6.58	5.54	4.88	5.32	3.09	0.82	-2.05	-1.39	1.04	1.70	8.25	1.00	0.43	0



Stellar Parameters For KIC 003648000

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	4321^{+129}_{-129}	$4.638^{+0.053}_{-0.025}$	$-0.280^{+0.300}_{-0.300}$	$0.616^{+0.045}_{-0.055}$	$0.602^{+0.068}_{-0.049}$	$3.624^{+0.851}_{-0.441}$
	+3%/-3%	+1%/-1%	+107%/-107%	+7%/-9%	+11%/-8%	+23%/-12%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 003648000-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-1319±155	$4.28^{+3.61}_{-2.63}$	669^{+23}_{-23}	3558^{+1522}_{-606}	379^{+2124}_{-273}
Alt.	-754±115	$3.59^{+3.48}_{-2.54}$	669^{+25}_{-22}	3437^{+2051}_{-628}	298^{+3397}_{-219}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming A=0.3)

A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

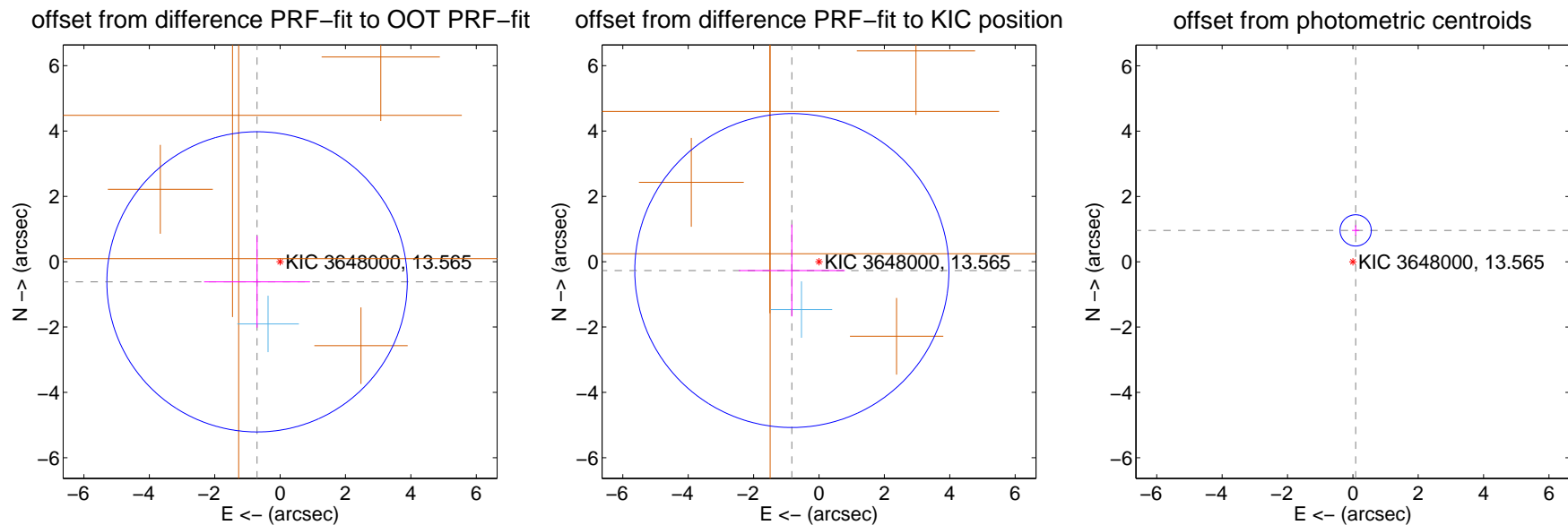
DV Centroid Data

Supplemental centroid analysis for 003648000-03. Kepler magnitude: 13.56. Transit SNR 7.57

There are 1 quarters with good PRF difference image offsets

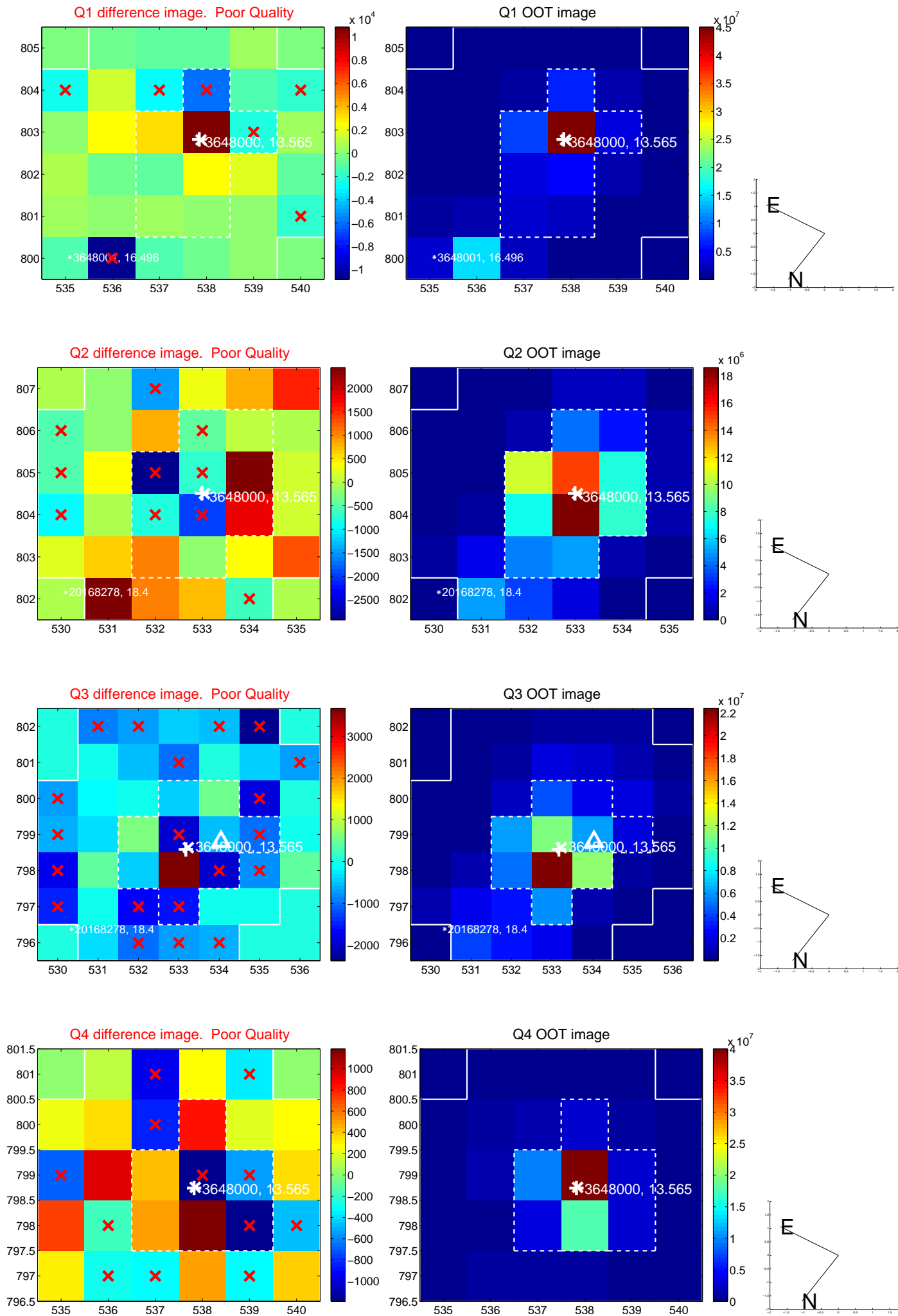
The direct PRF centroid is offset from the target star catalog position by about 0.22 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.936 ± 1.531	0.61	0.704 ± 1.620	-0.616 ± 1.405
PRF-fit source offset from KIC position	0.872 ± 1.601	0.54	0.829 ± 1.620	-0.271 ± 1.405
photometric centroid source offset	0.96 ± 0.16	6.05	-0.08 ± 0.11	0.96 ± 0.16

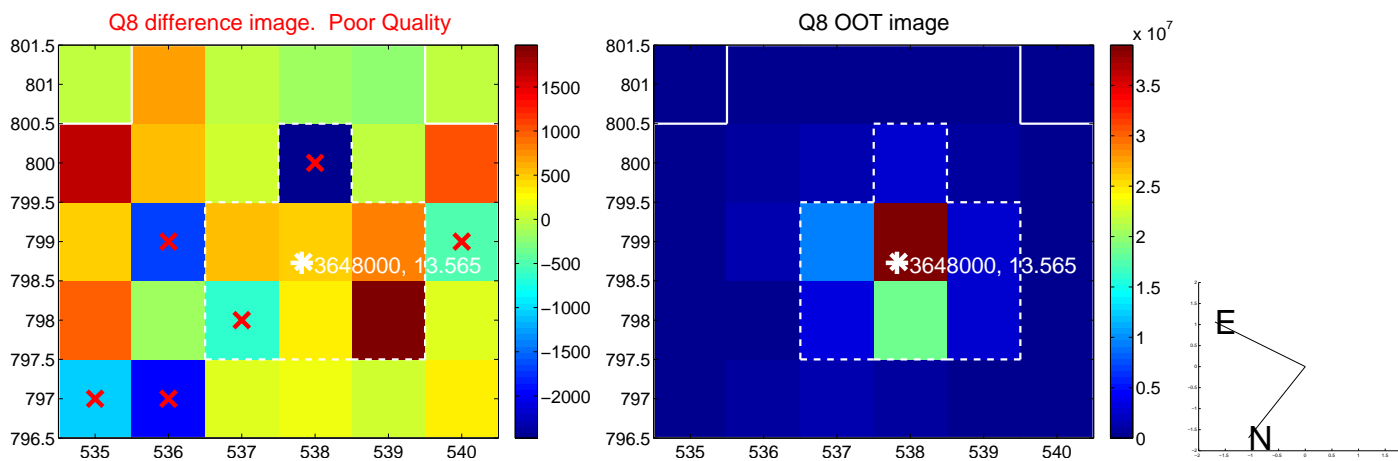
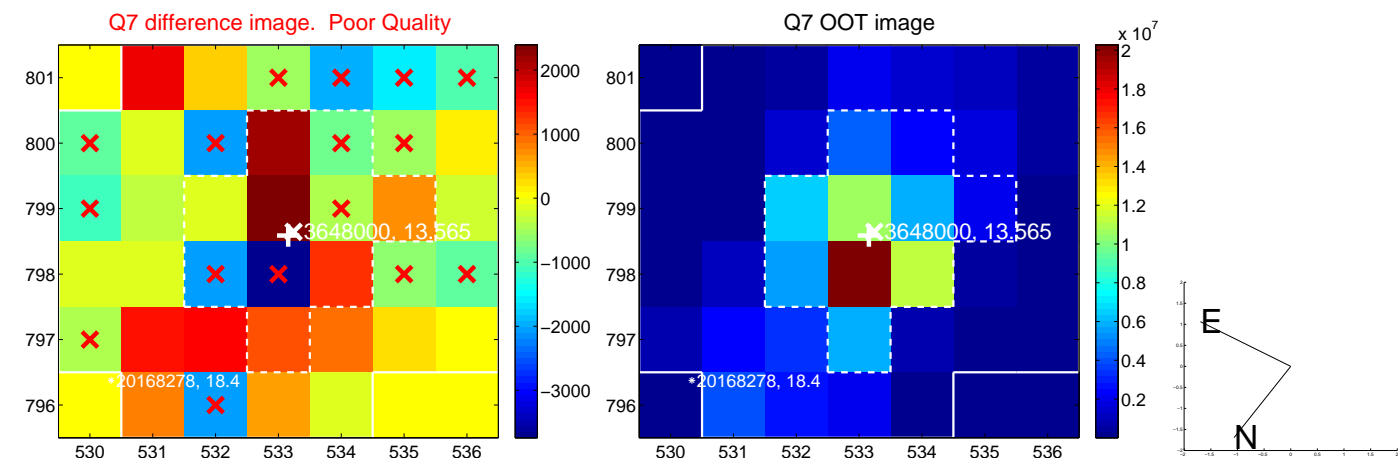
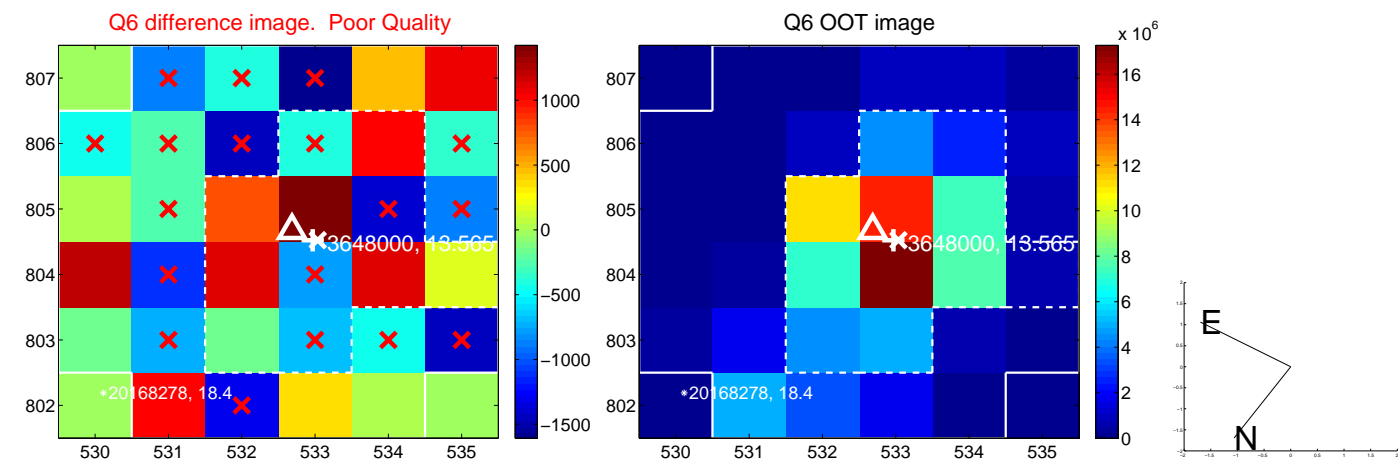
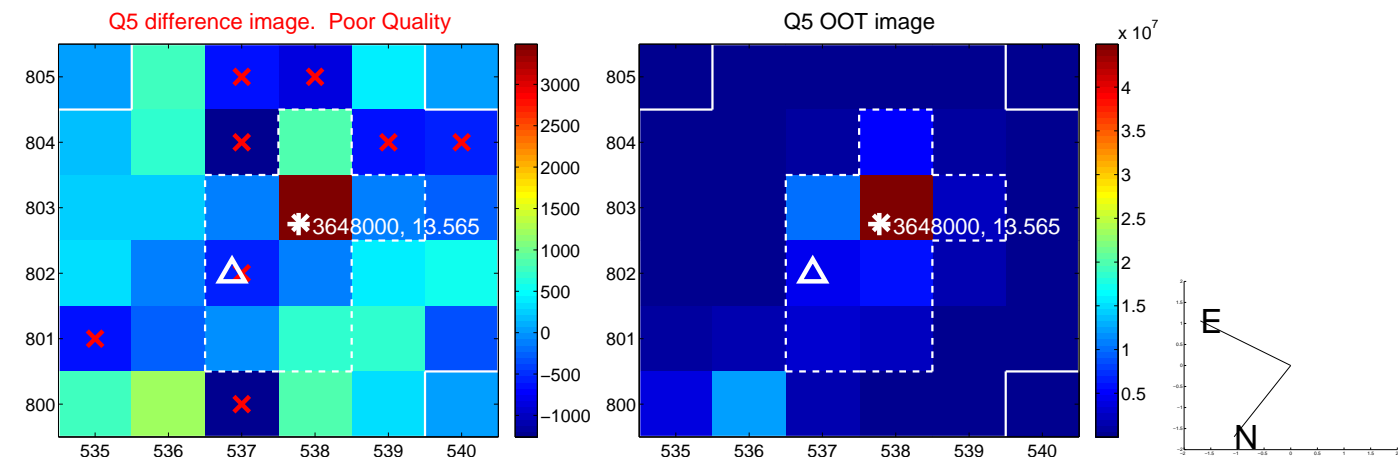


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

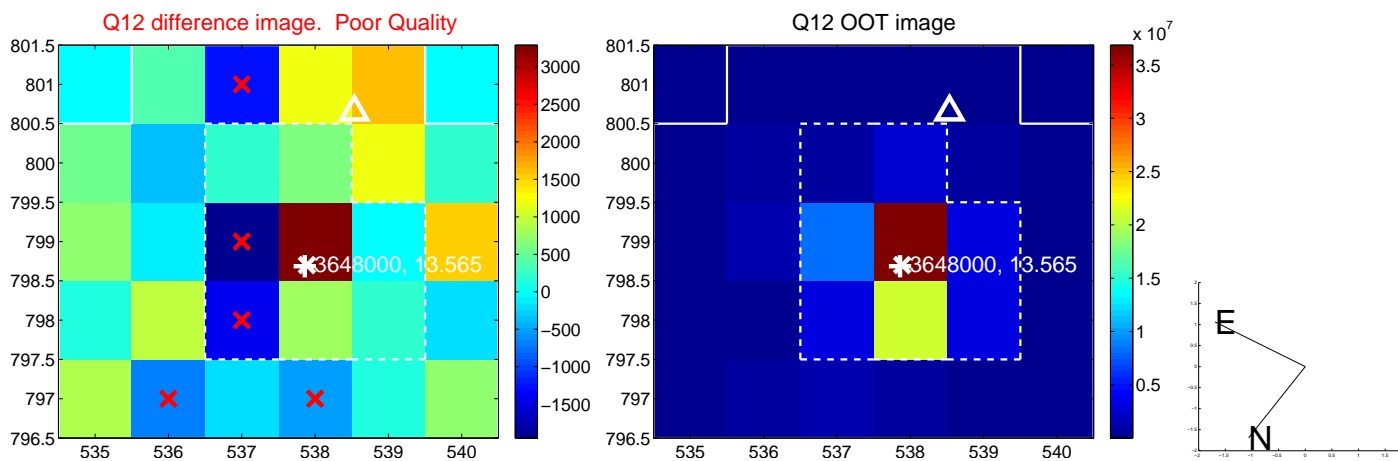
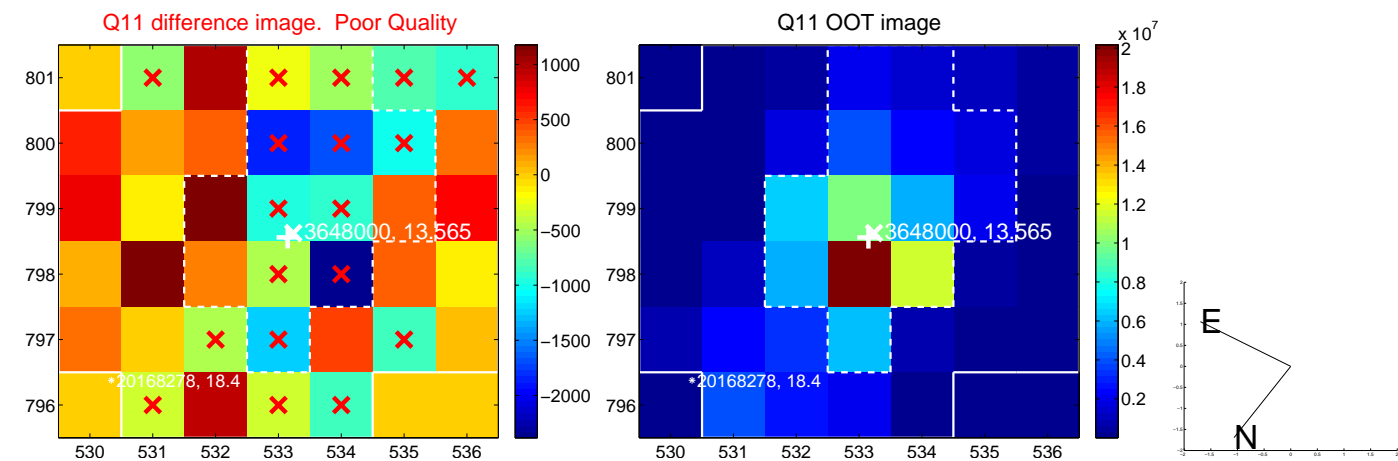
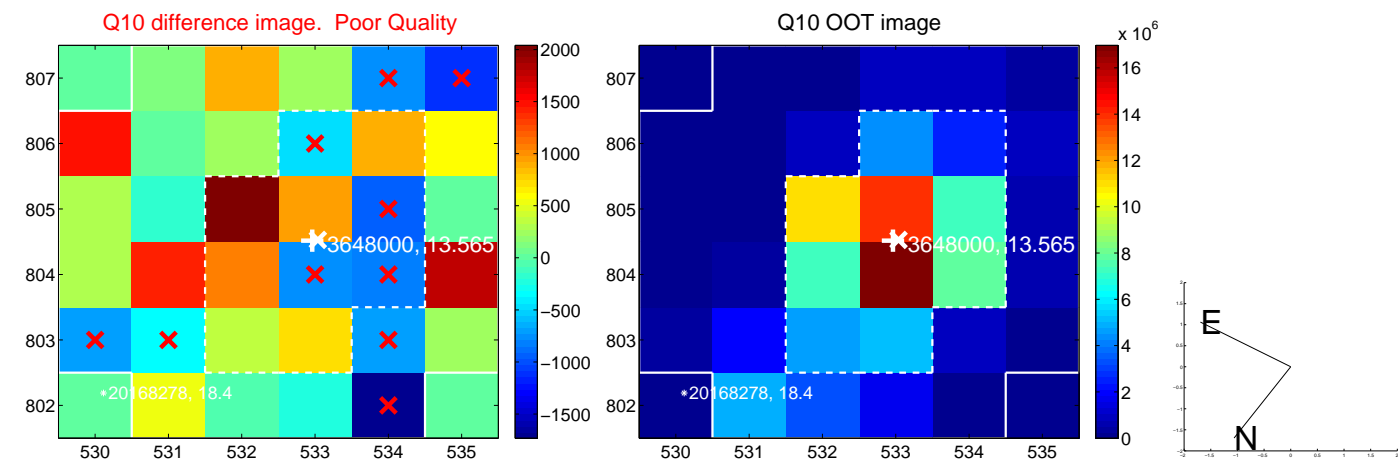
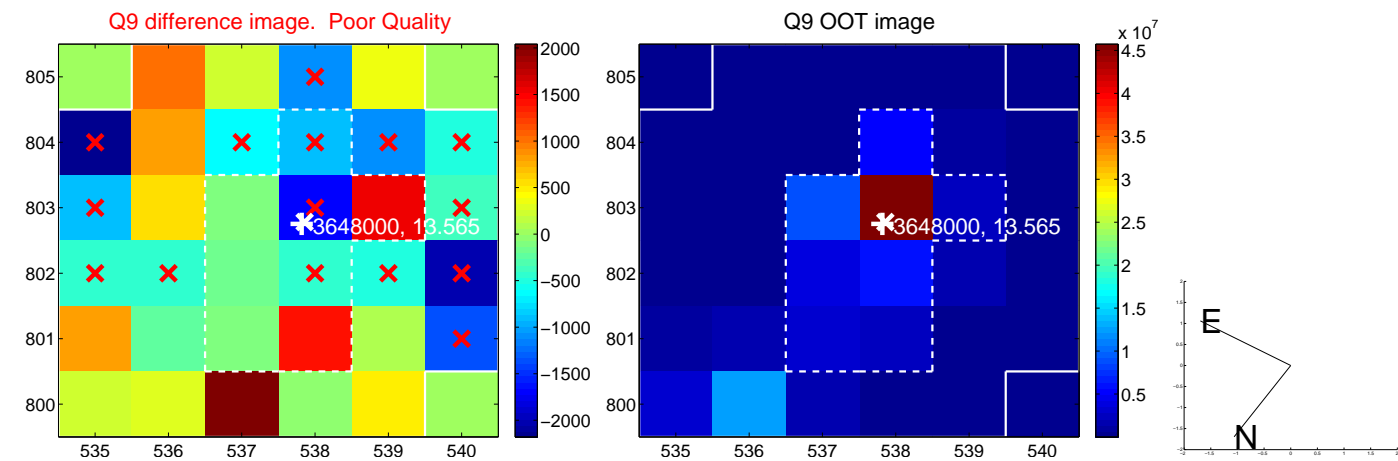
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



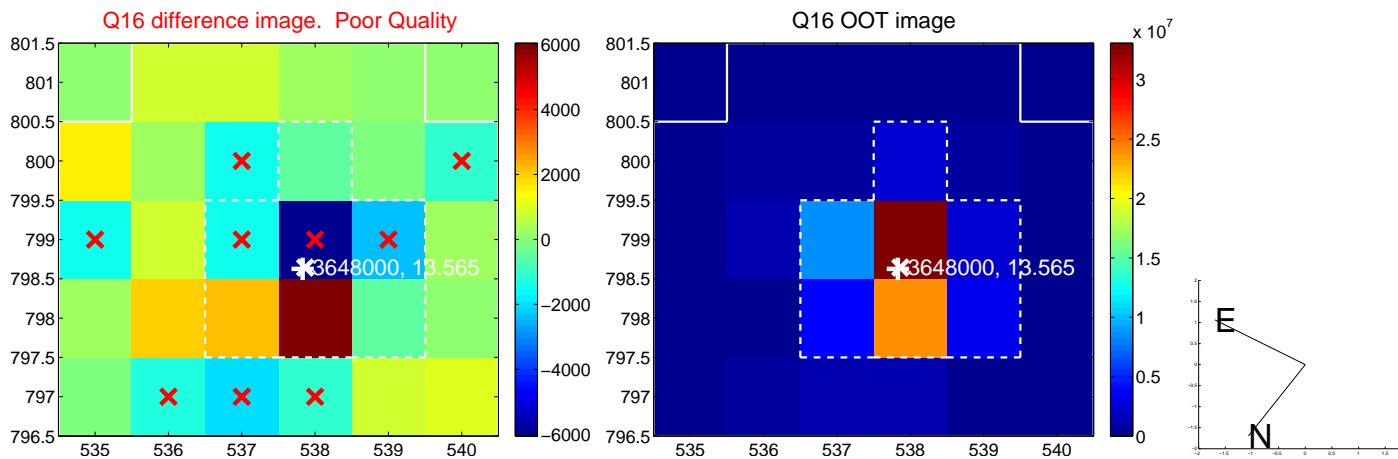
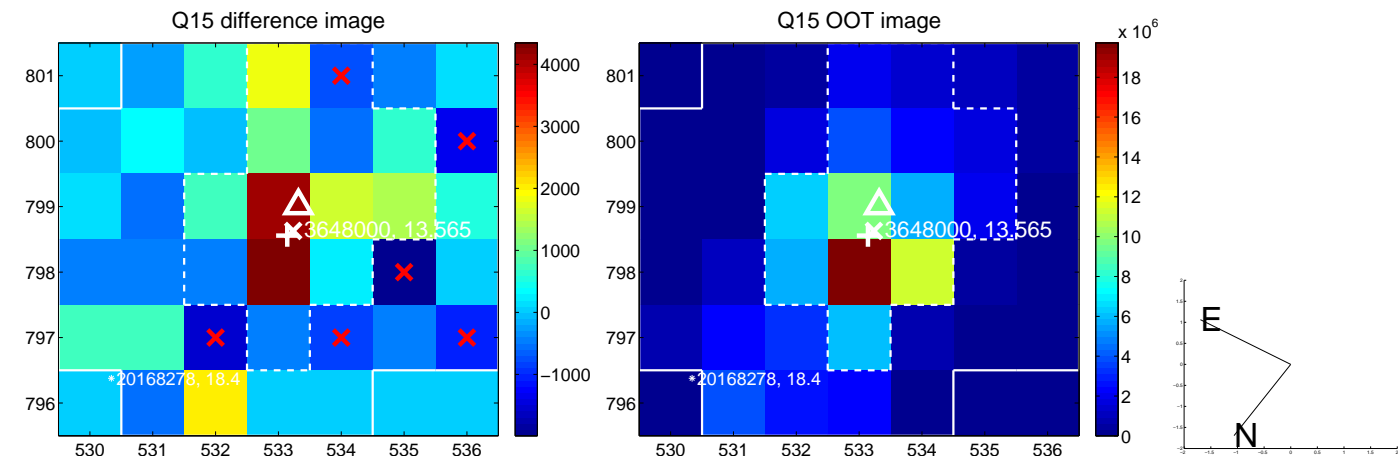
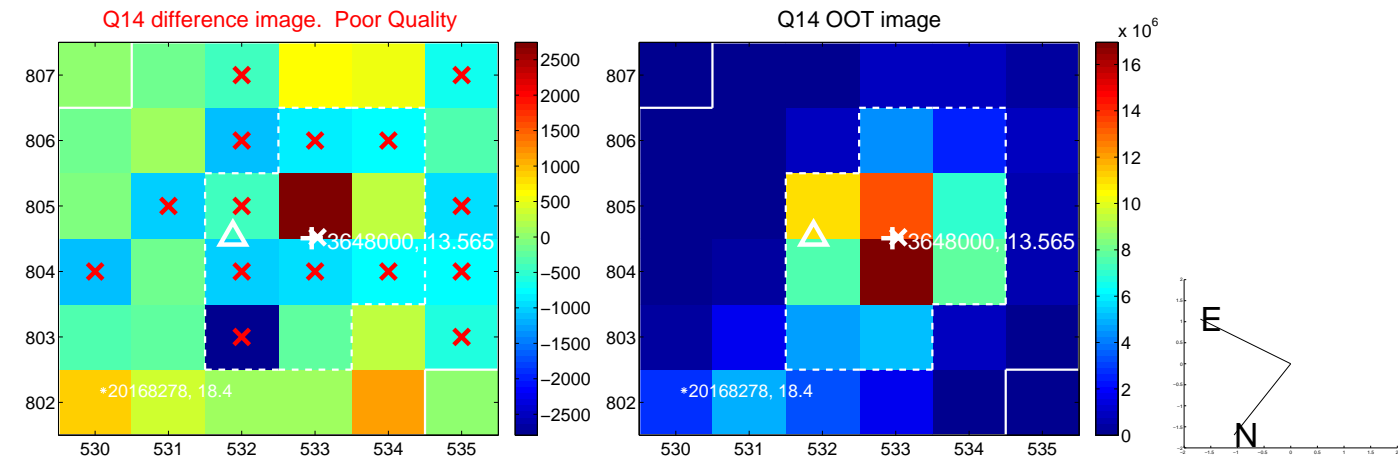
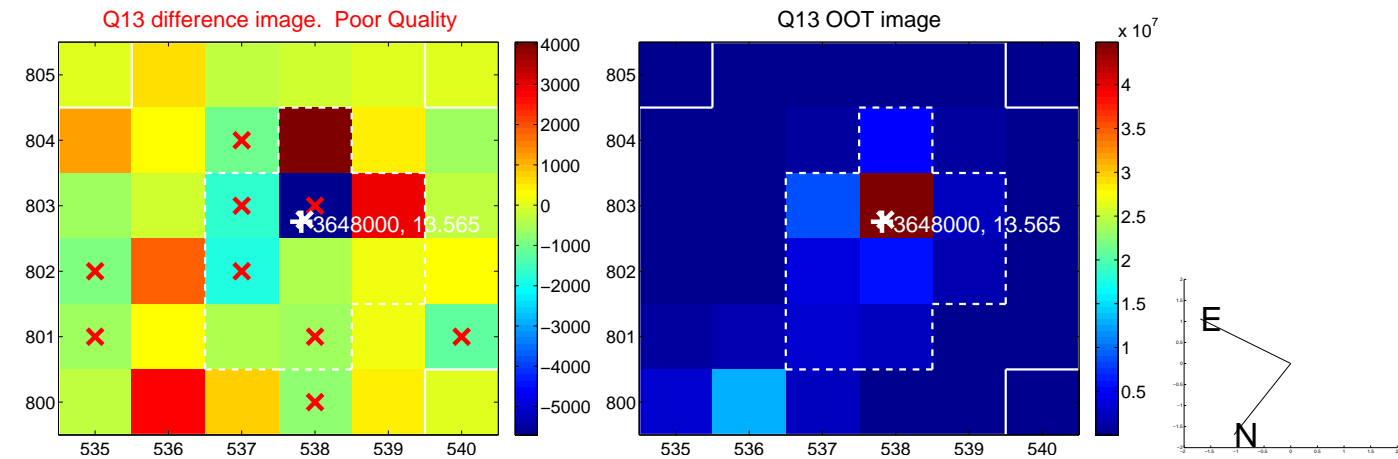
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



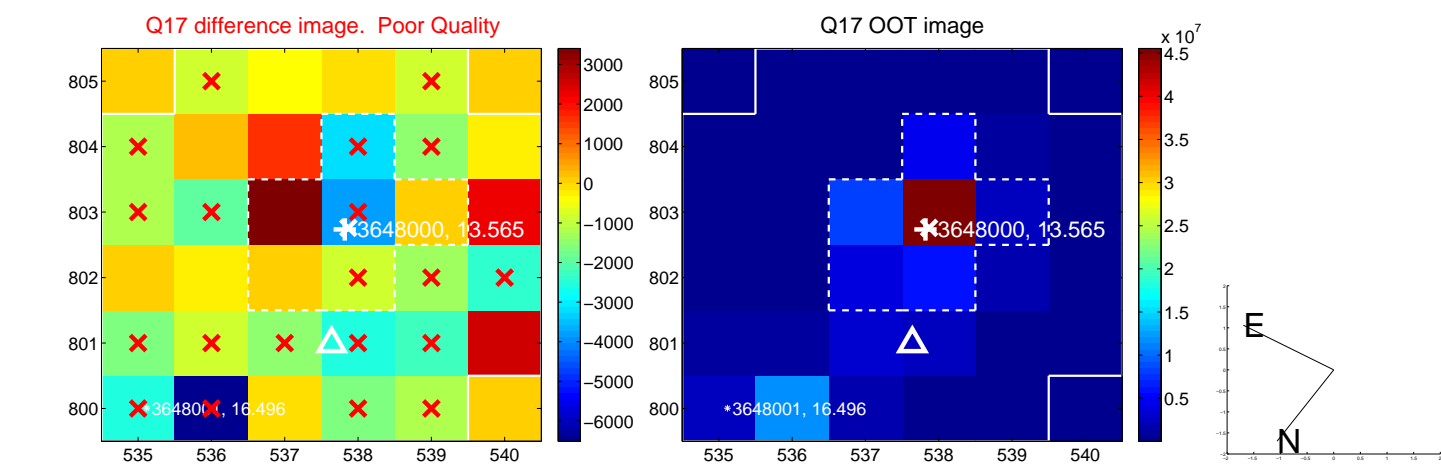
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



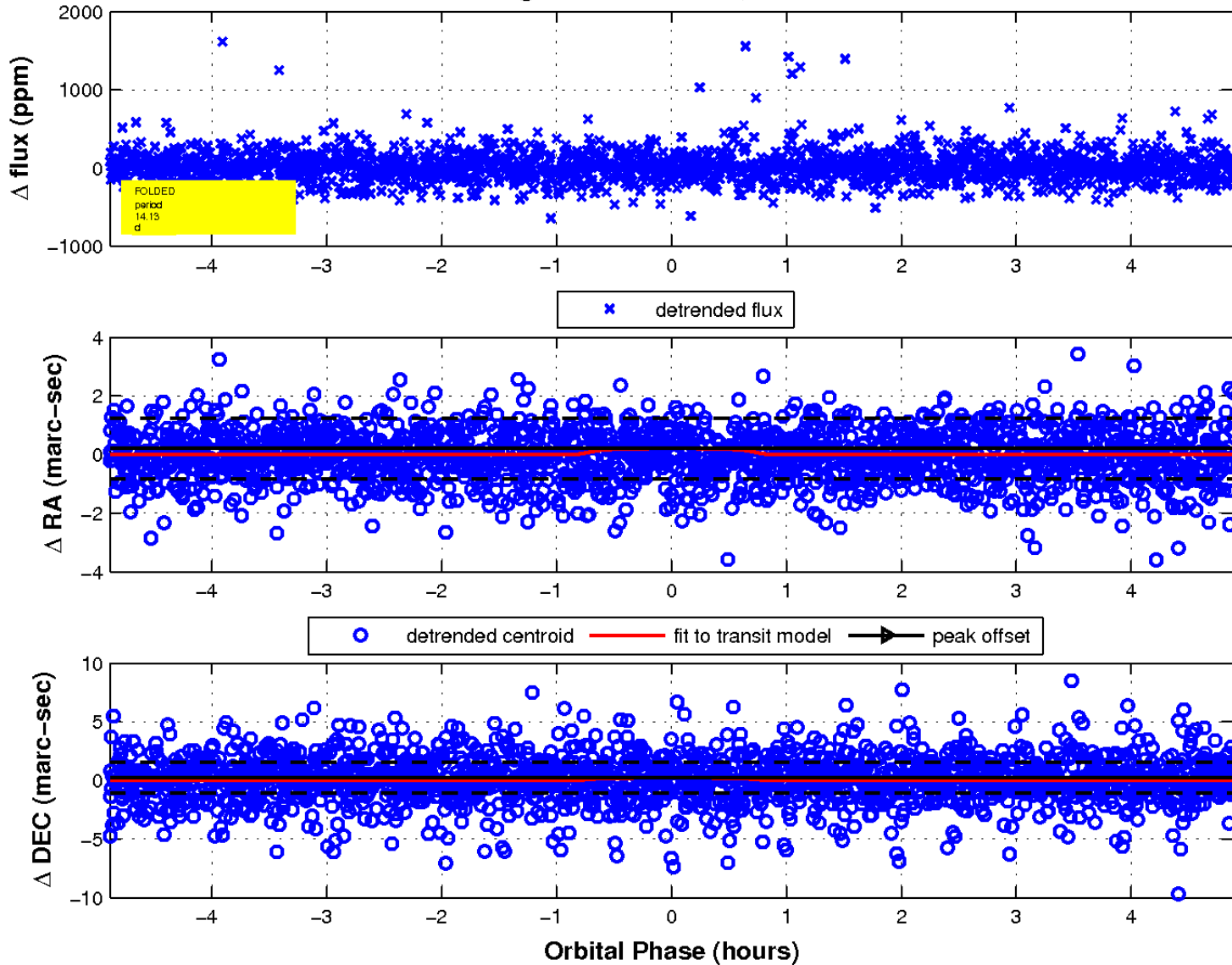
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; Δ : difference centroid. red \times : large negative pixel value.

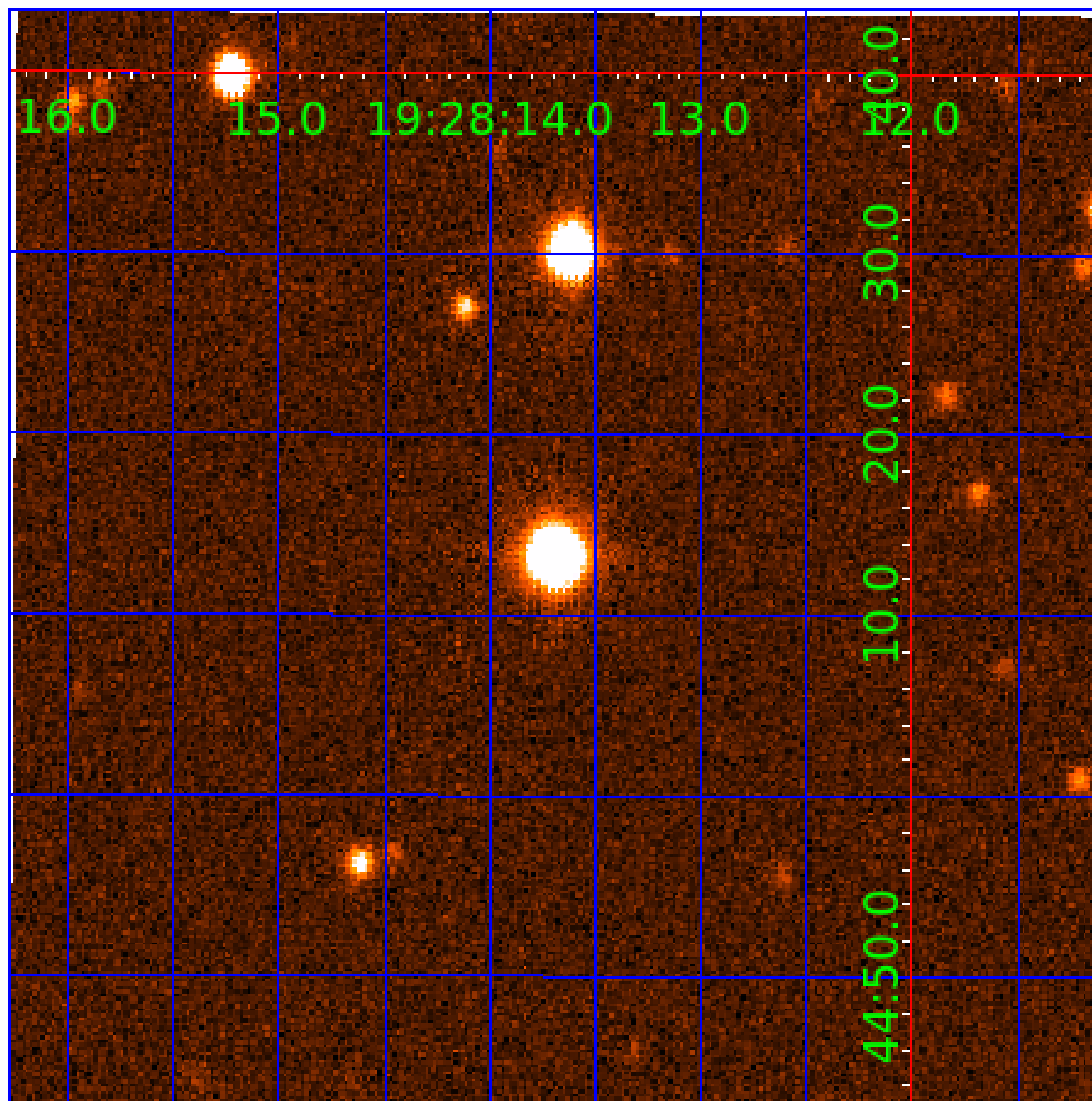


fluxWeightedCentroids, Planet 3 of 6



UKIRT Image

Declination



KIC 003648000

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
003648000-01	OBS	No	0.542462	132.038973	18.1	3.869	8.0	8.8	0.62	4321	0.28	981.28
003648000-02	OBS	No	29.738031	139.540294	2437.5	1.344	13.6	11.6	0.62	4321	3.41	4.71
003648000-03	OBS	No	14.128733	131.601366	1439.6	1.631	12.7	7.6	0.62	4321	2.63	12.71
003648000-04	OBS	No	16.221431	138.973408	1594.2	0.577	11.9	8.0	0.62	4321	2.58	10.57
003648000-06	OBS	No	23.662131	145.945372	939.3	1.500	12.0	-1.0	0.62	4321	1.84	6.39

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003648000-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_FEW_DIFFS
003648000-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—CENT_UNCERTAIN—HALO_GHOST
003648000-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_MEAS
003648000-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—CENT_FEW_DIFFS
003648000-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_NOFITS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

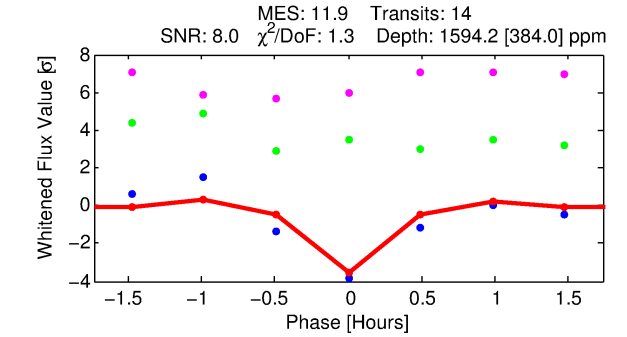
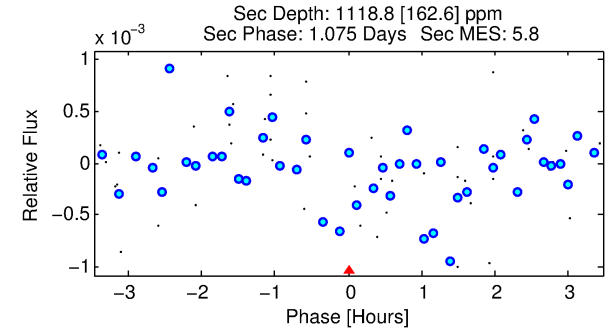
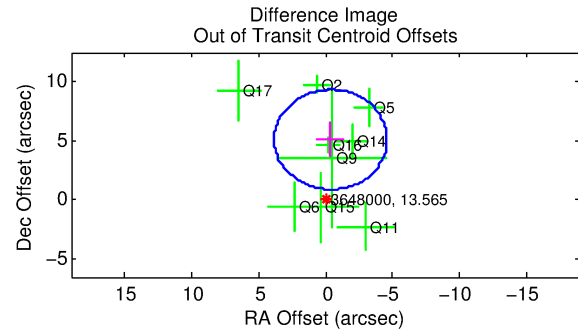
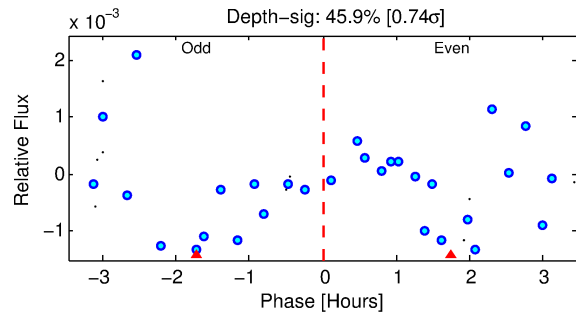
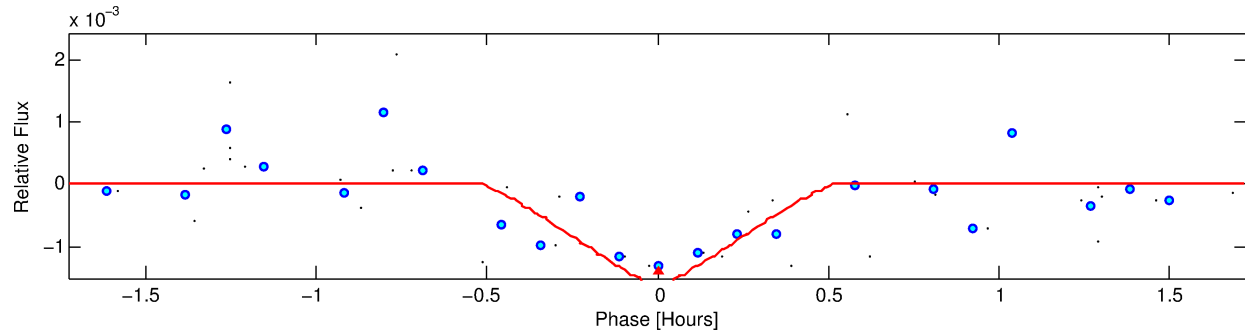
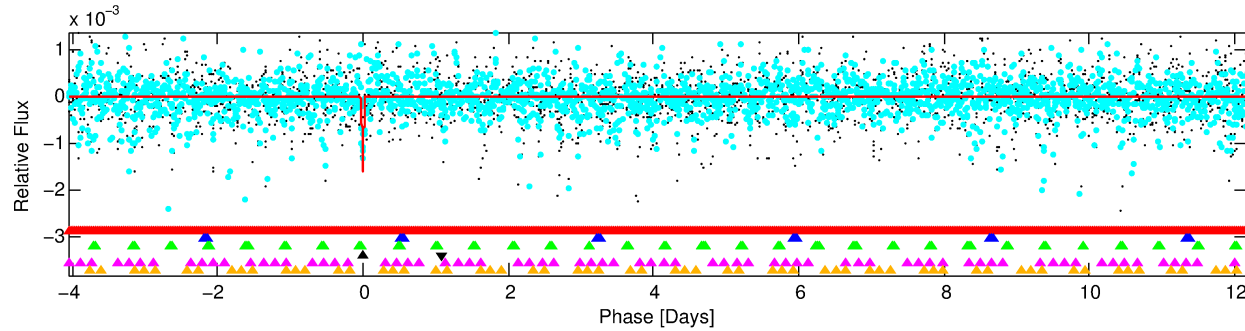
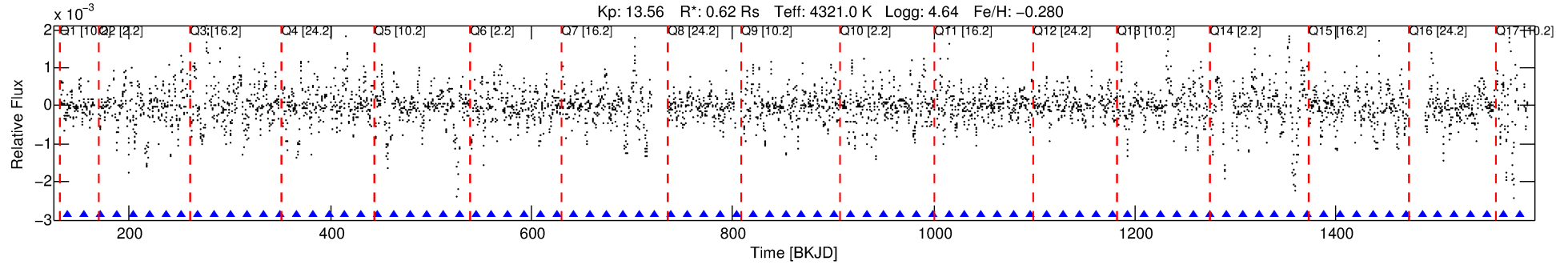
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003648000-04

No Significant Match Found

DV One-Page Summary

KIC: 3648000 Candidate: 4 of 6 Period: 16.221 d



DV Fit Results:

Period = 16.22143 [0.00007] d
Epoch = 138.9734 [0.0040] BKJD
Rp/R* = 0.0384 [0.0667]
a/R* = 201.19 [1194.42]
b = 0.45 [10.47]
Seff = 10.57 [1.65]
Teq = 460 [18] K
Rp = 2.58 [4.49] Re
a = 0.1059 [0.0076] AU
Ag = 1033.99 [3594.48] [0.29 σ]
Teff = 4031 [3504] K [1.02 σ]

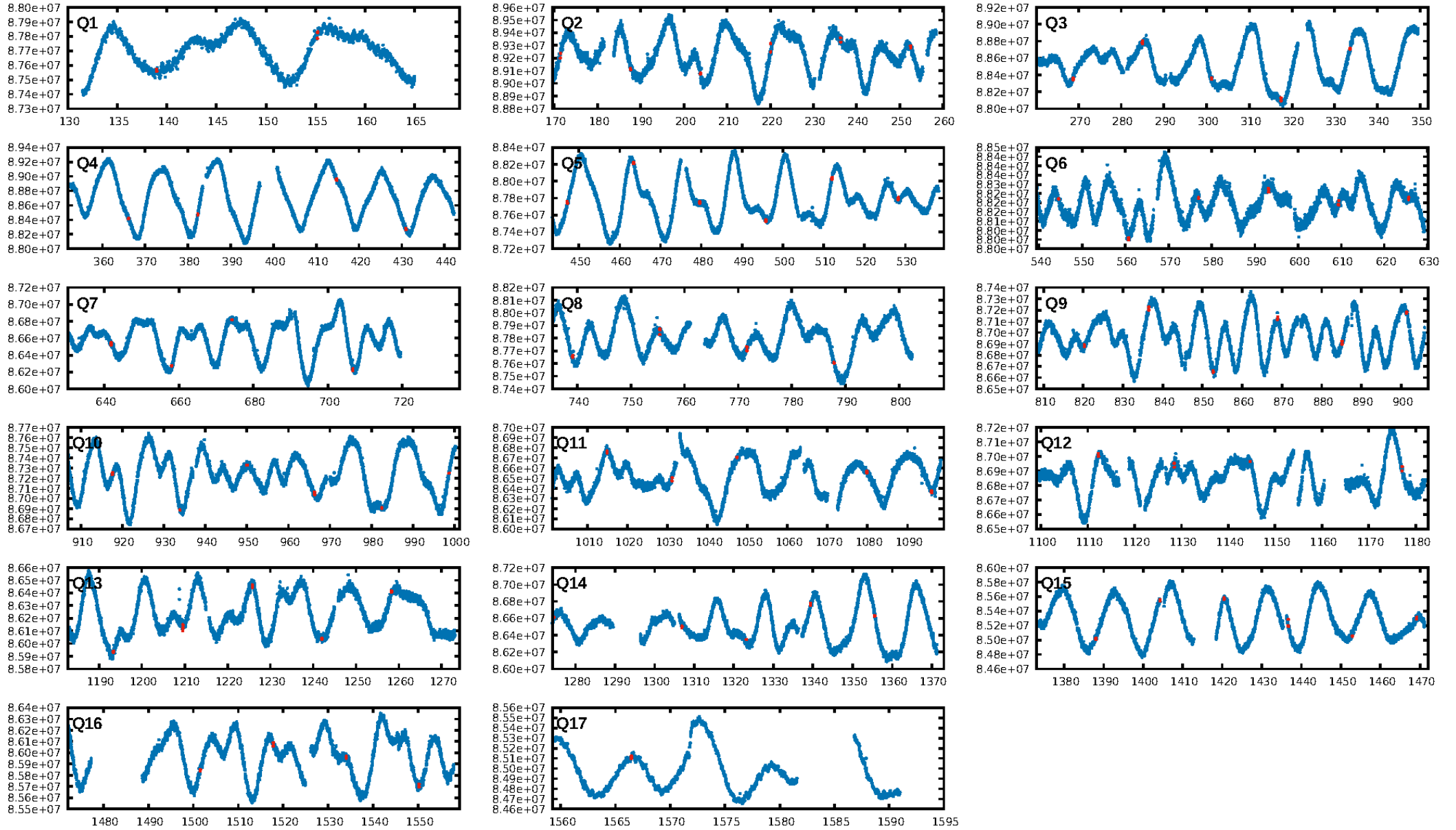
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [29.03 σ]
LongPeriod-sig: 100.0% [68.69 σ]
ModelChiSquare2-sig: 40.9%
ModelChiSquareGof-sig: 89.7%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [14/14]
GhostDiagnostic-chr: -6.765
Centroid-sig: 21.9%
Centroid-so: 1.309 arcsec [5.38 σ]
OotOffset-rm: 5.141 arcsec [3.66 σ]
KicOffset-rm: 5.273 arcsec [3.49 σ]
OotOffset-st: 3/2/1/3 [9]
KicOffset-st: 3/2/1/3 [9]
DiffImageQuality-fgm: 0.00 [0/9]
DiffImageOverlap-fno: 0.00 [0/17]

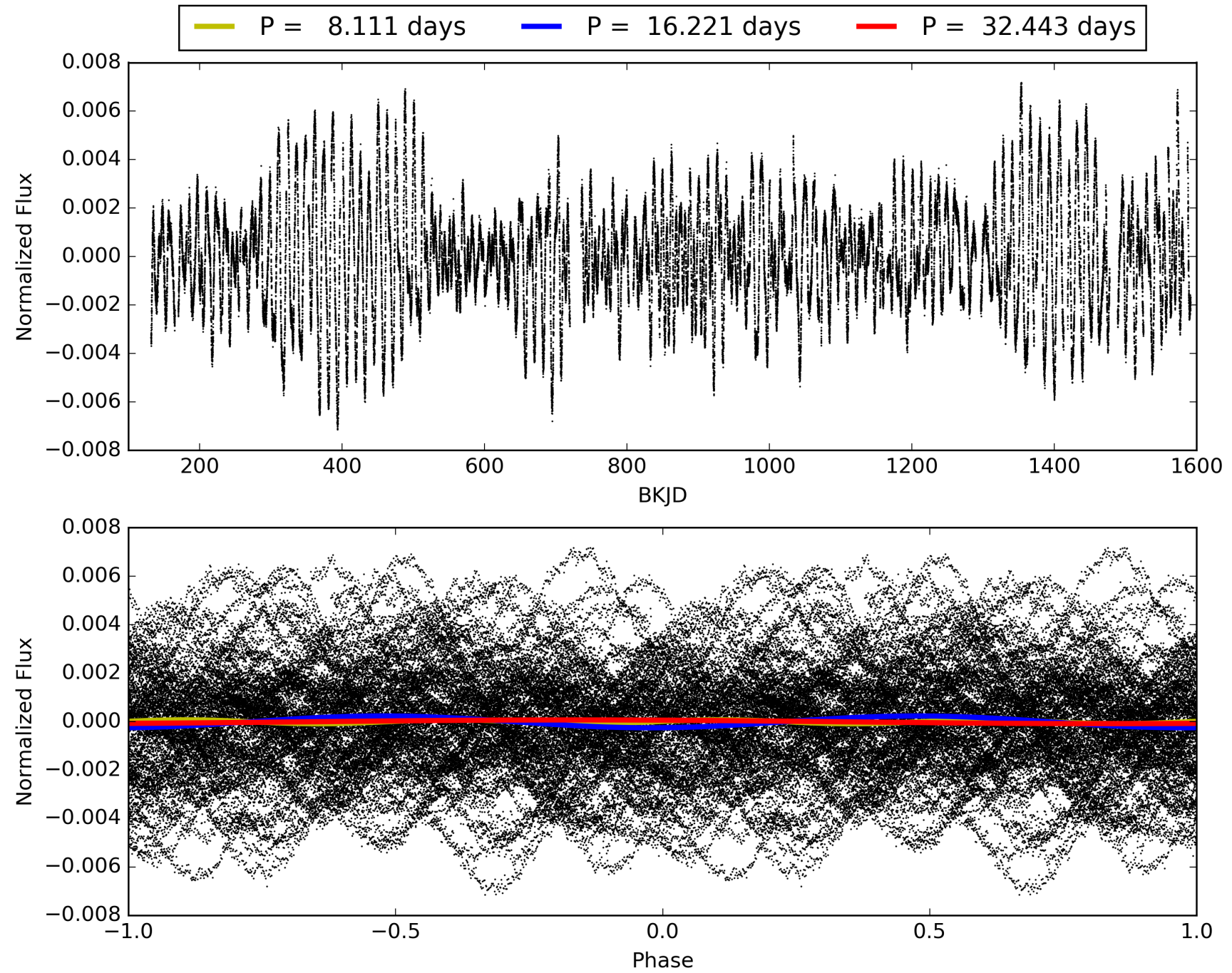
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 06:04:24 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 003648000-04, PDC Light Curves

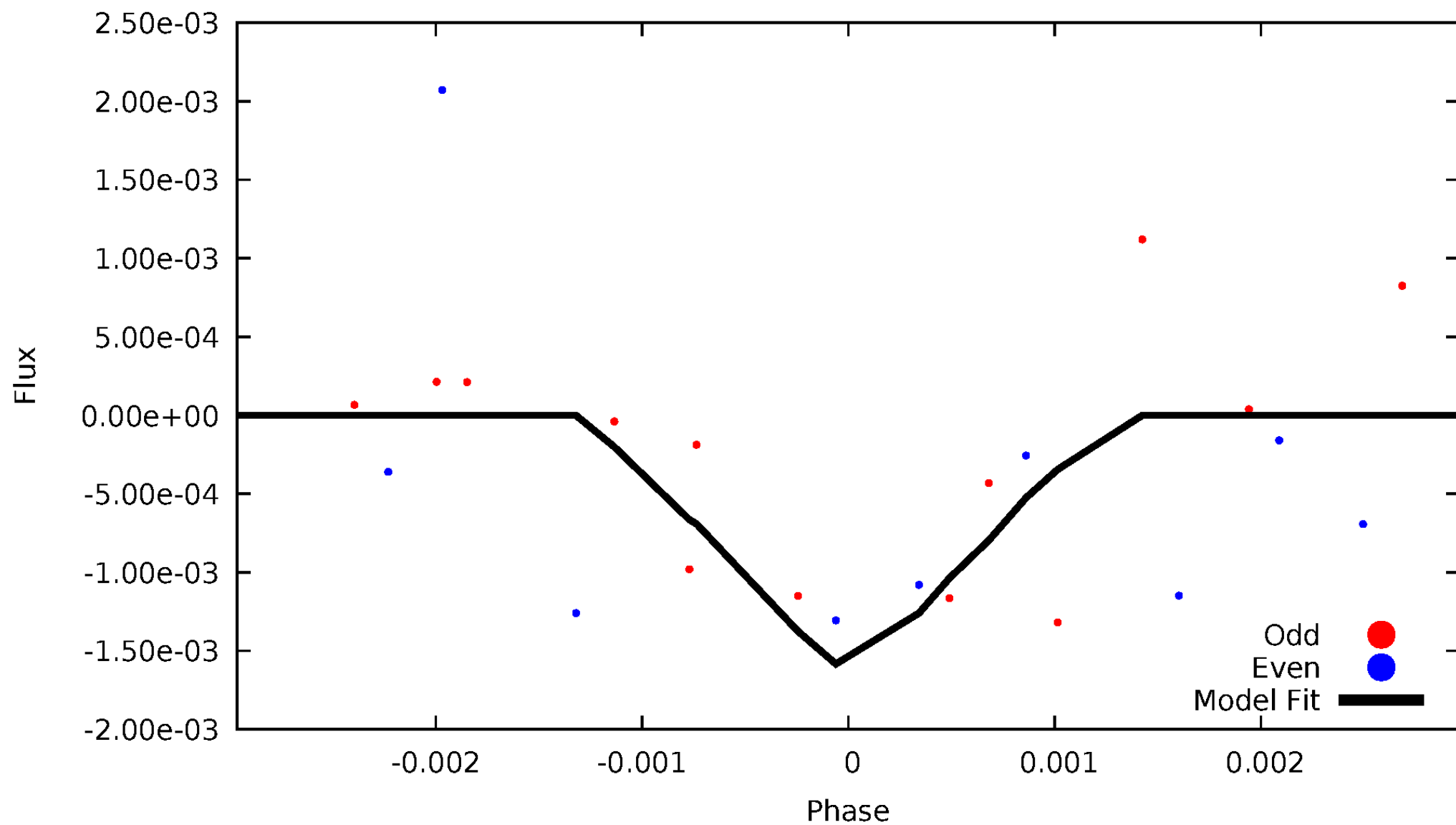


TCE 003648000-04



DV Odd/Even

TCE 003648000-04

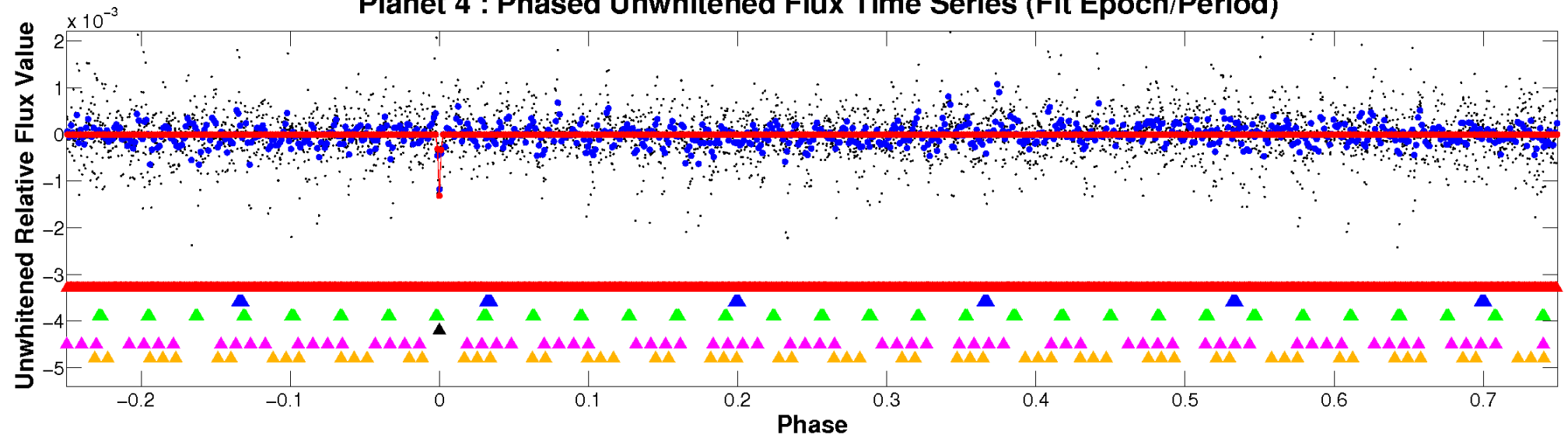


ALT Odd/Even

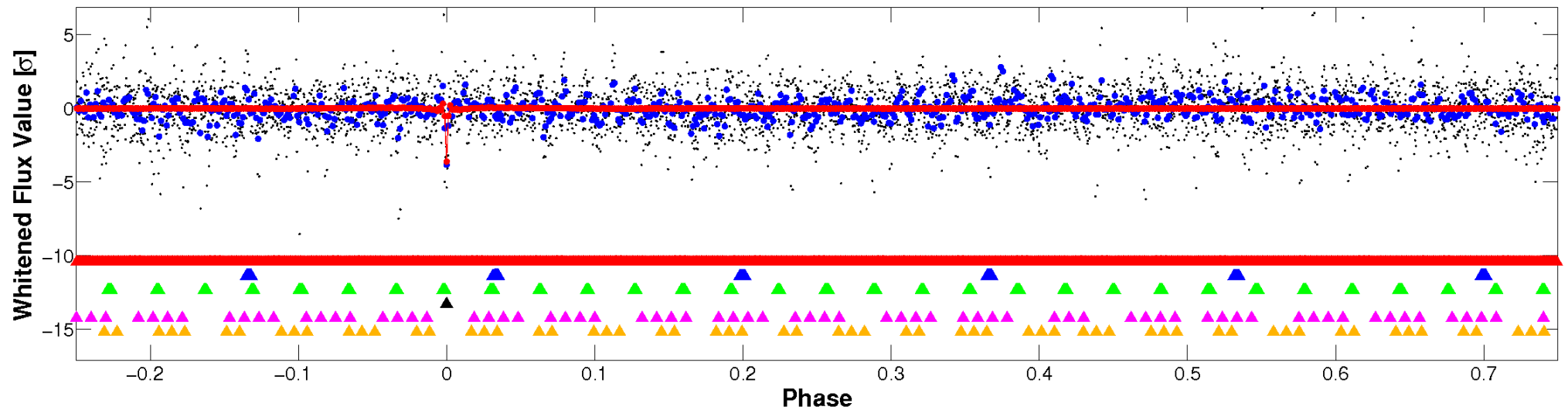
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

Planet 4 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

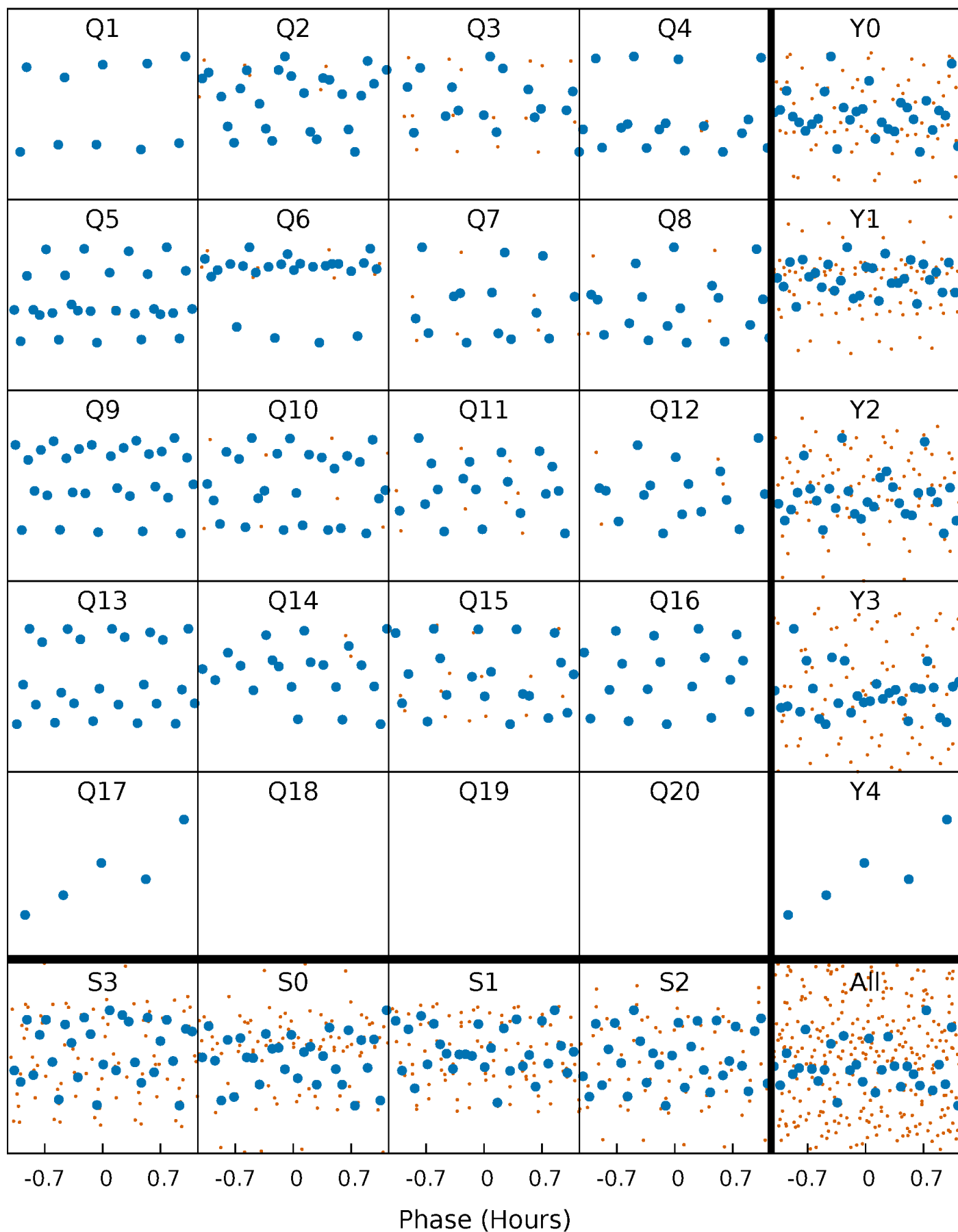


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



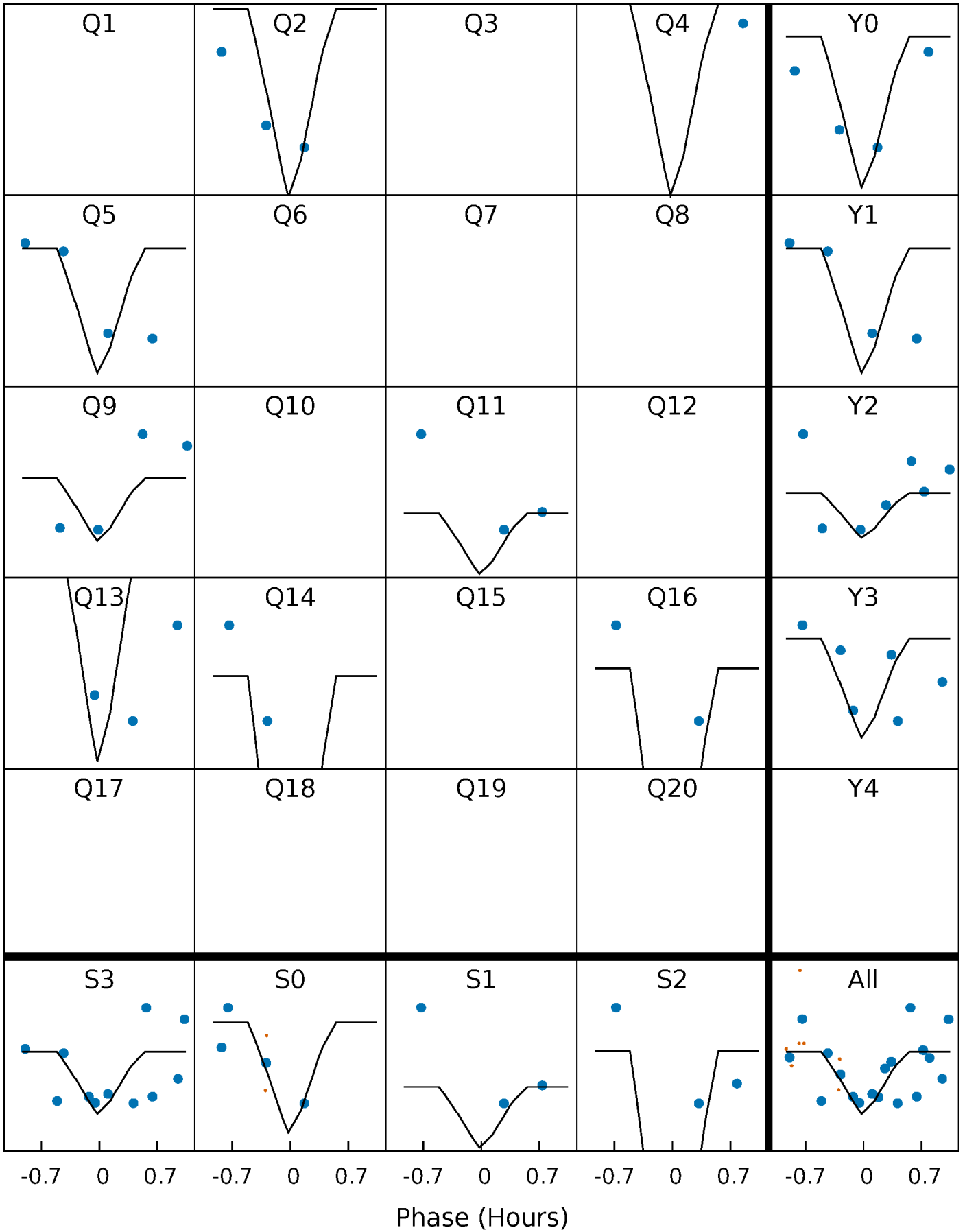
PDC Quarter-Phased Transit Curves

TCE 003648000-04 P= 16.221431 Days $T_0=138.973408$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 003648000-04 P= 16.221431 Days $T_0=138.973408$ (BKJD)

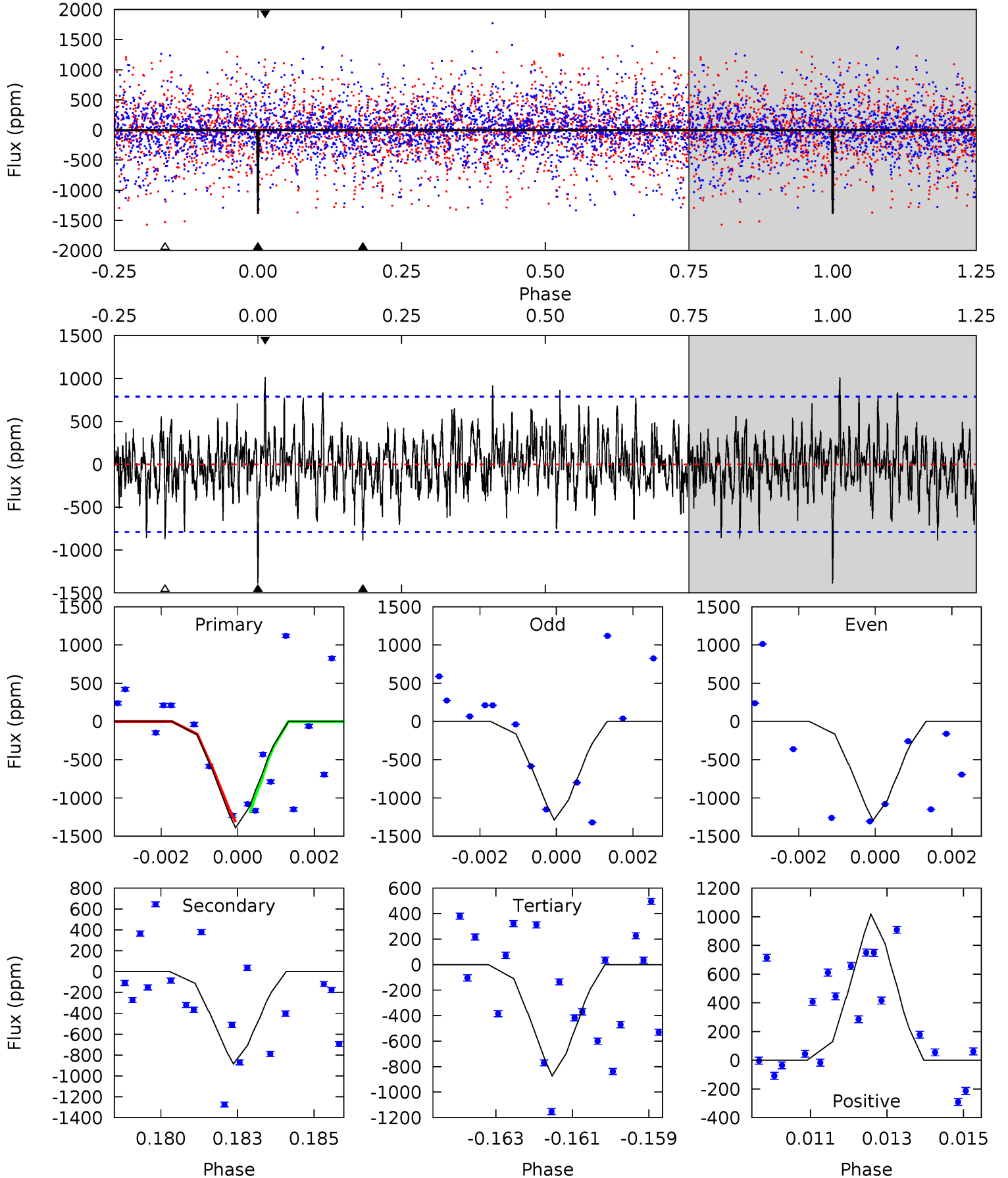


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

003648000-04, P = 16.221431 Days, E = 122.751977 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.38	5.97	5.88	6.87	5.31	3.07	1.74	3.50	2.51	0.09	-0.90	0.01	1.00	0.42	0.40



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 003648000

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	4321^{+129}_{-129}	$4.638^{+0.053}_{-0.025}$	$-0.280^{+0.300}_{-0.300}$	$0.616^{+0.045}_{-0.055}$	$0.602^{+0.068}_{-0.049}$	$3.624^{+0.851}_{-0.441}$
	+3%/-3%	+1%/-1%	+107%/-107%	+7%/-9%	+11%/-8%	+23%/-12%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 003648000-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-885 ± 148	$4.26^{+3.72}_{-2.76}$	639^{+20}_{-23}	3333^{+1457}_{-543}	308^{+2173}_{-220}
Alt.	N/A	N/A	N/A	N/A	N/A

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming A=0.3)

A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

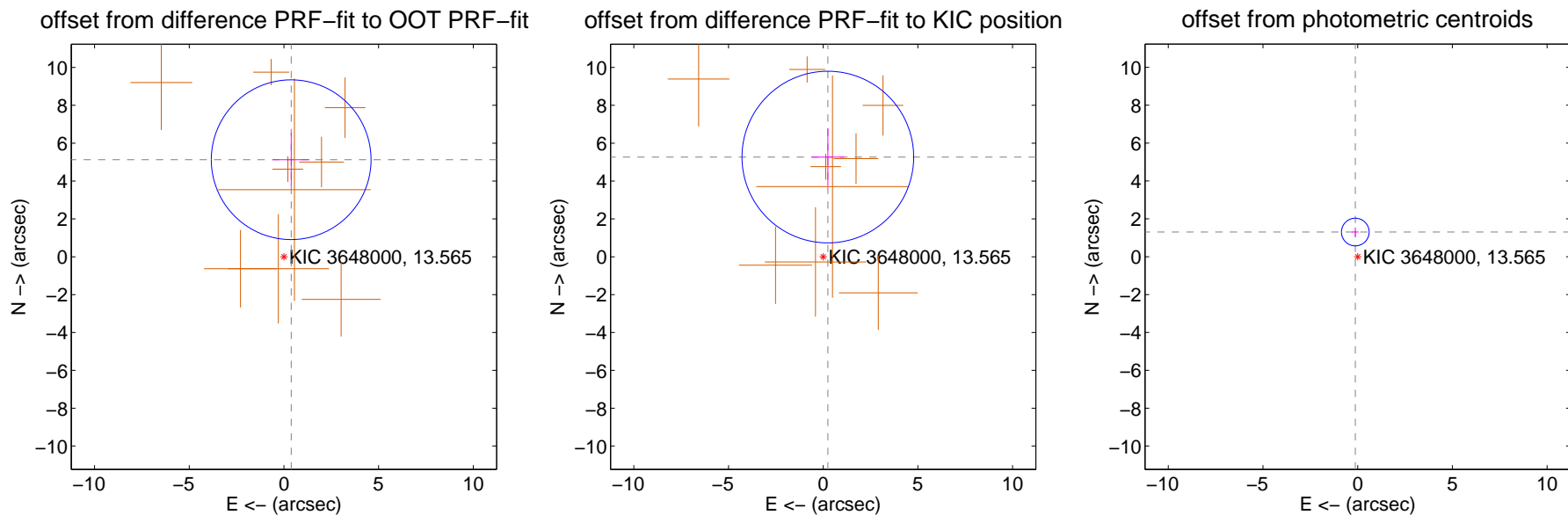
DV Centroid Data

Supplemental centroid analysis for 003648000-04. Kepler magnitude: 13.56. Transit SNR 7.98

There are 0 quarters with good PRF difference image offsets

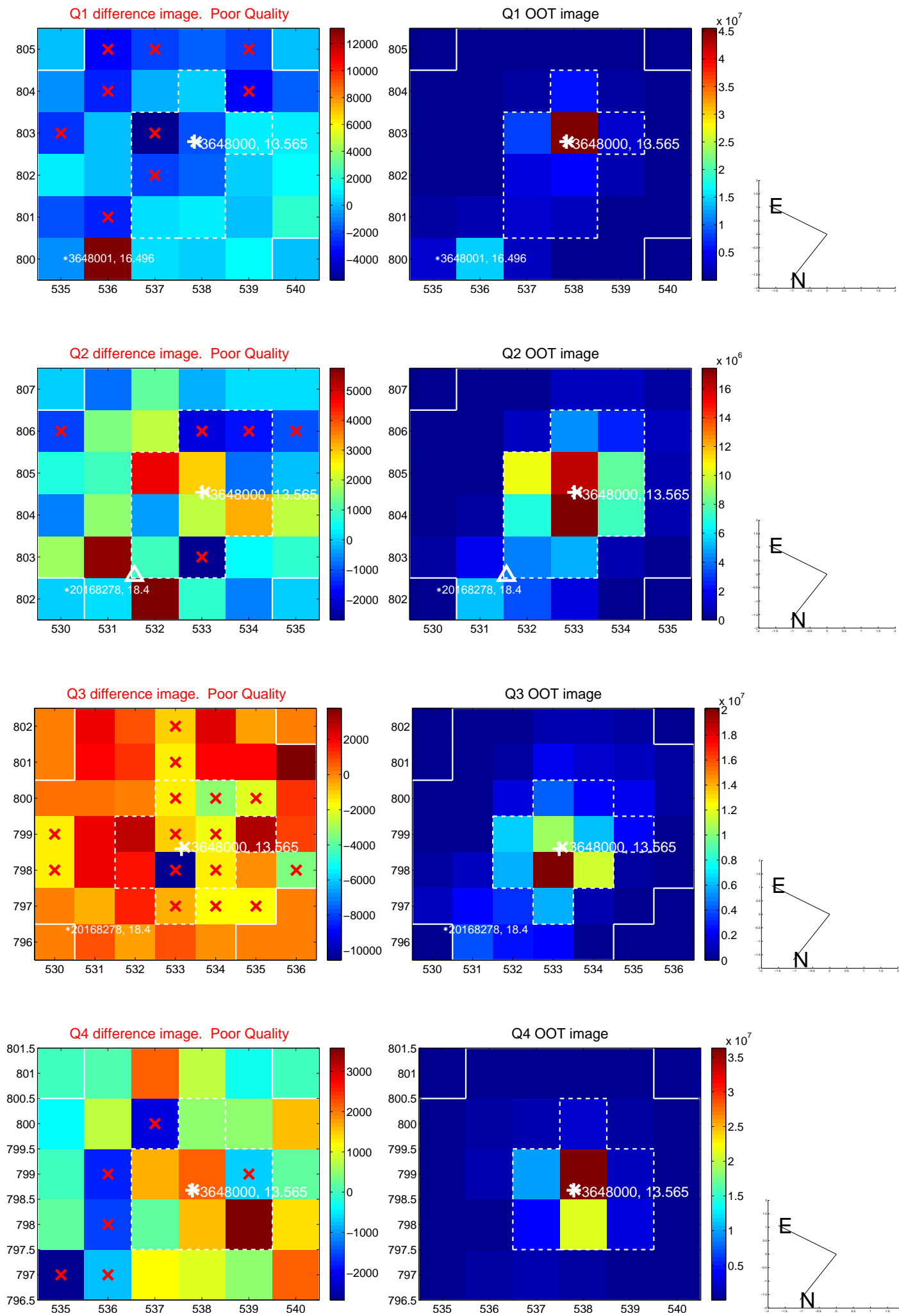
The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.141 ± 1.406	3.66	-0.383 ± 0.963	5.127 ± 1.434
PRF-fit source offset from KIC position	5.273 ± 1.511	3.49	-0.246 ± 0.857	5.267 ± 1.526
photometric centroid source offset	1.31 ± 0.24	5.38	0.13 ± 0.18	1.30 ± 0.24

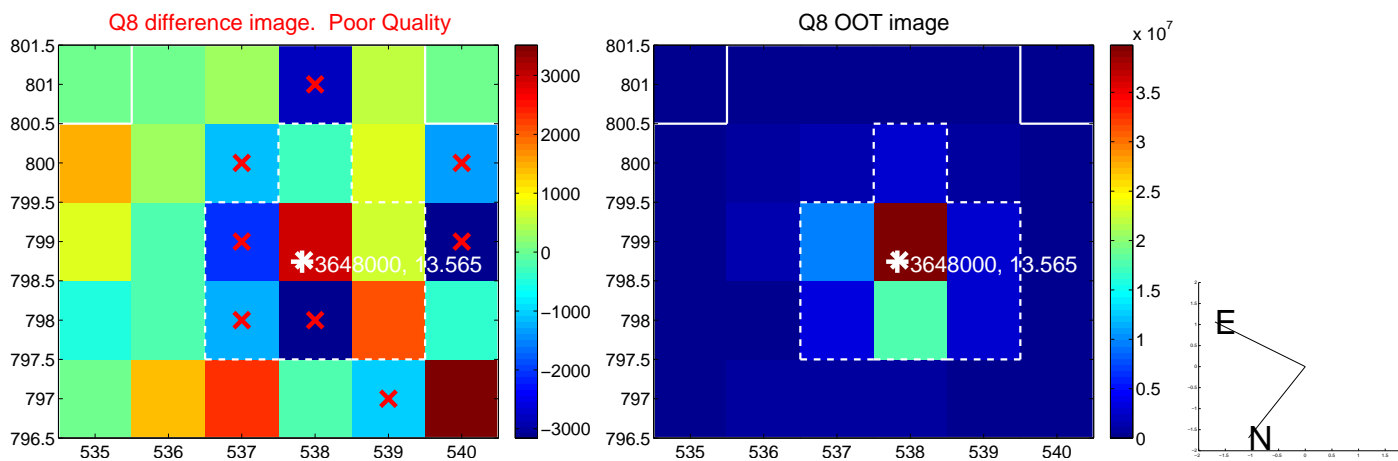
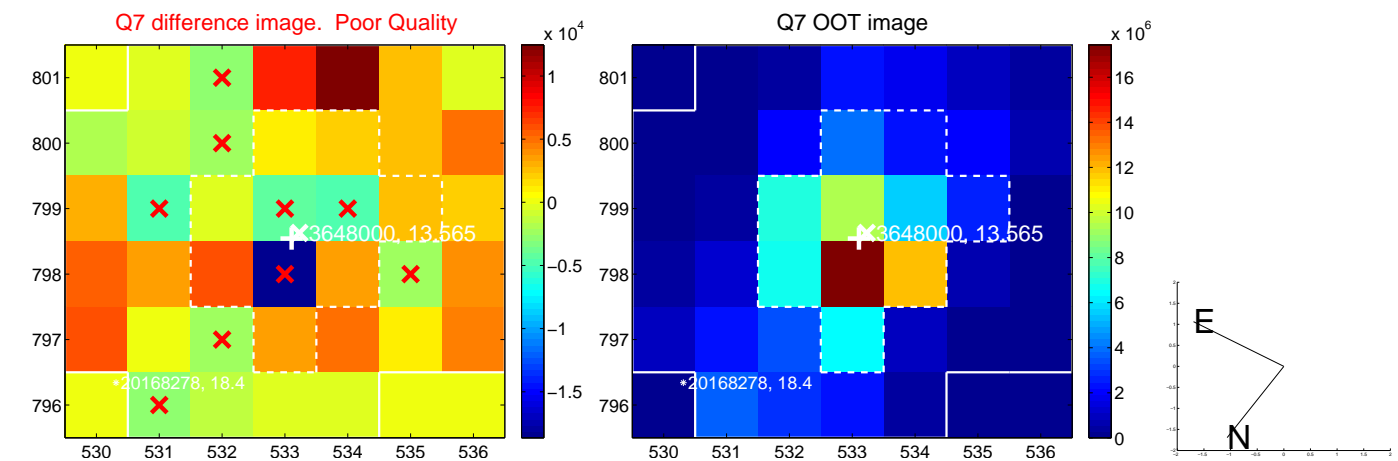
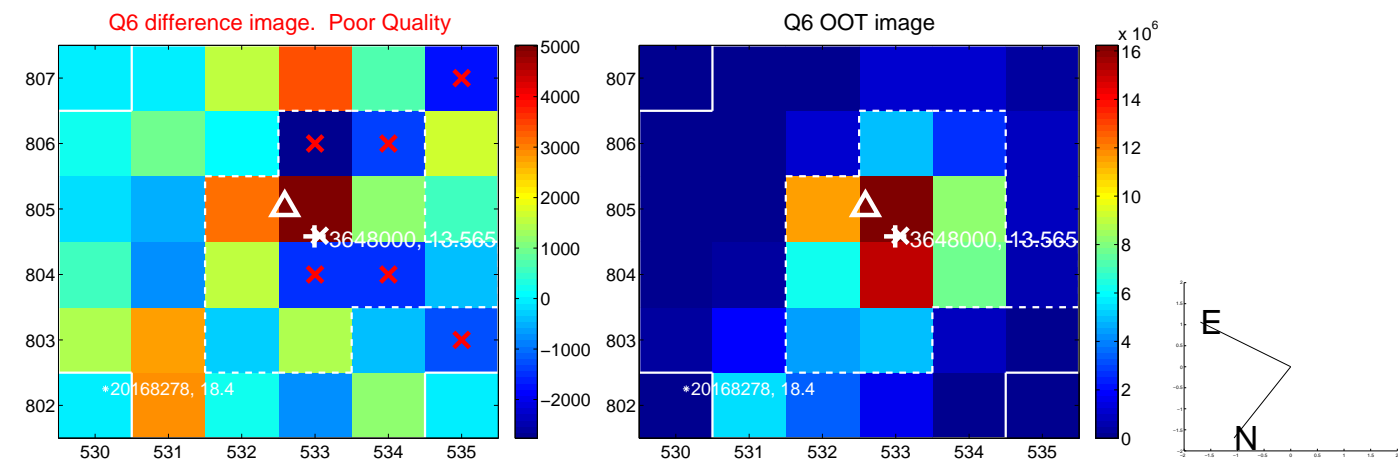
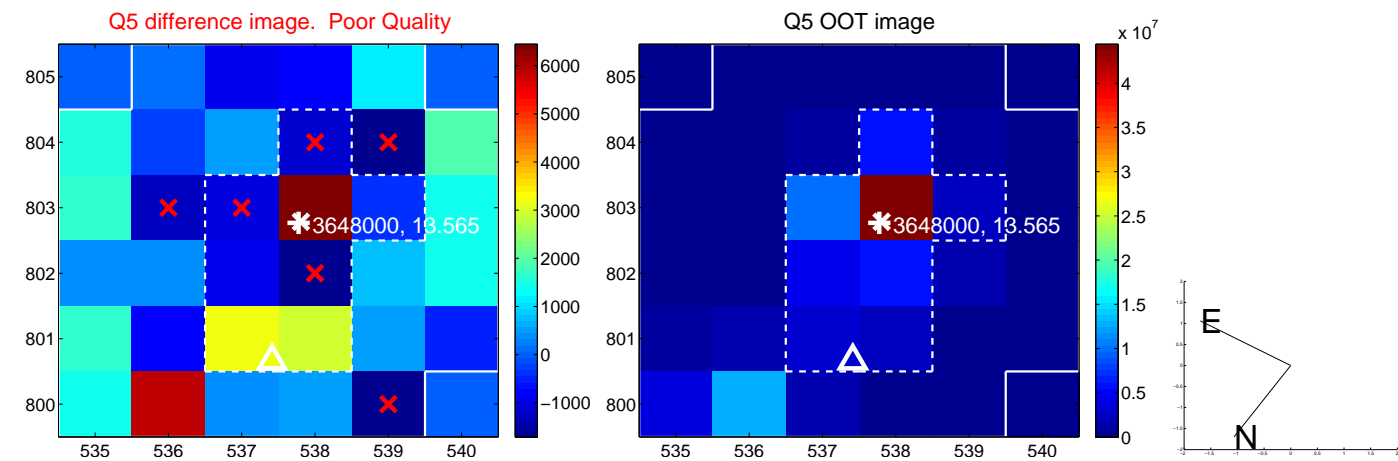


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

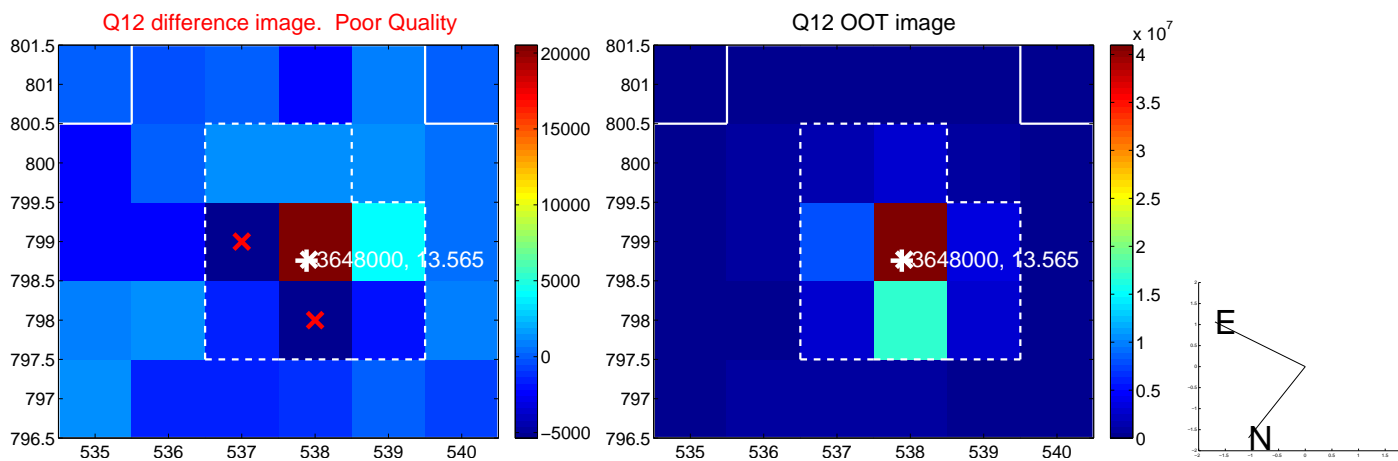
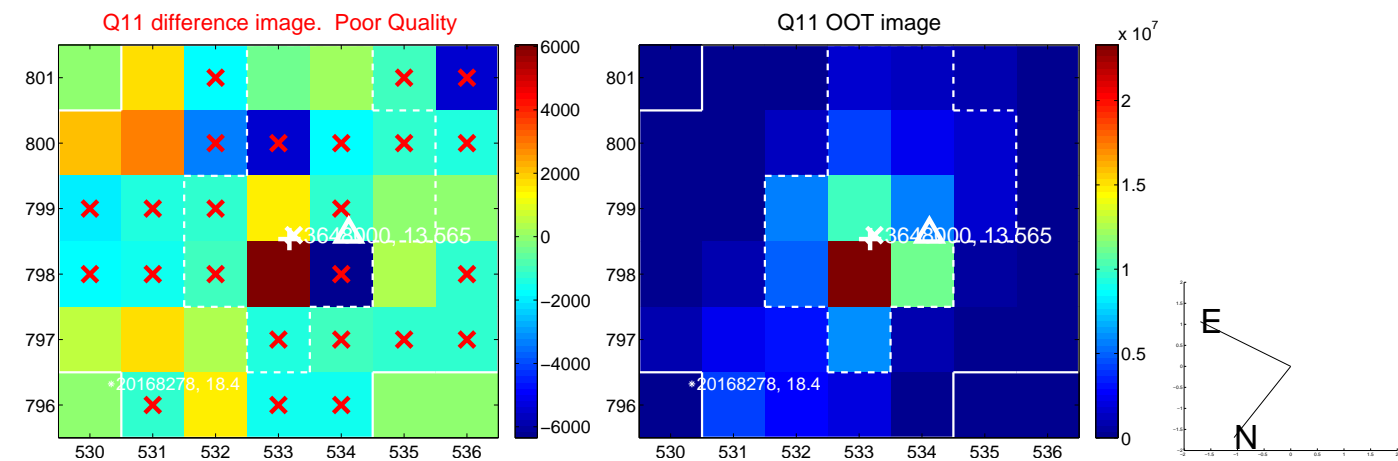
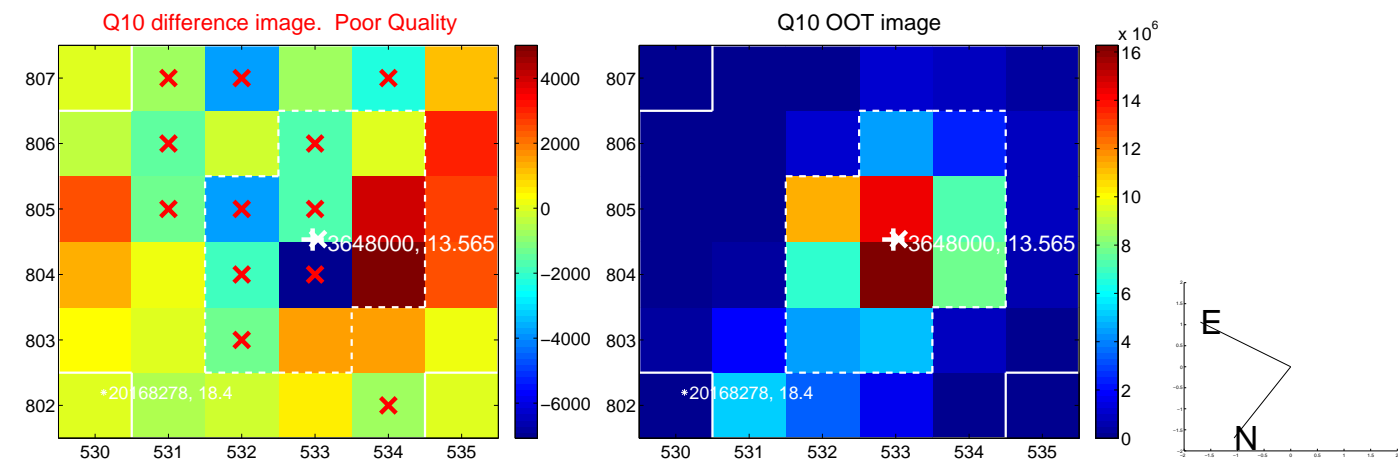
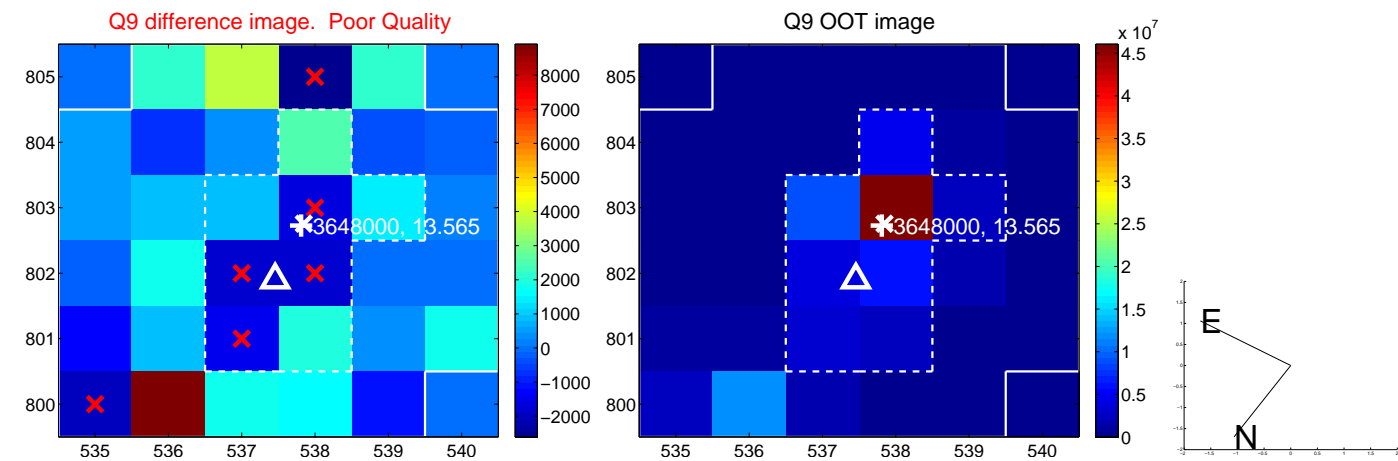
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



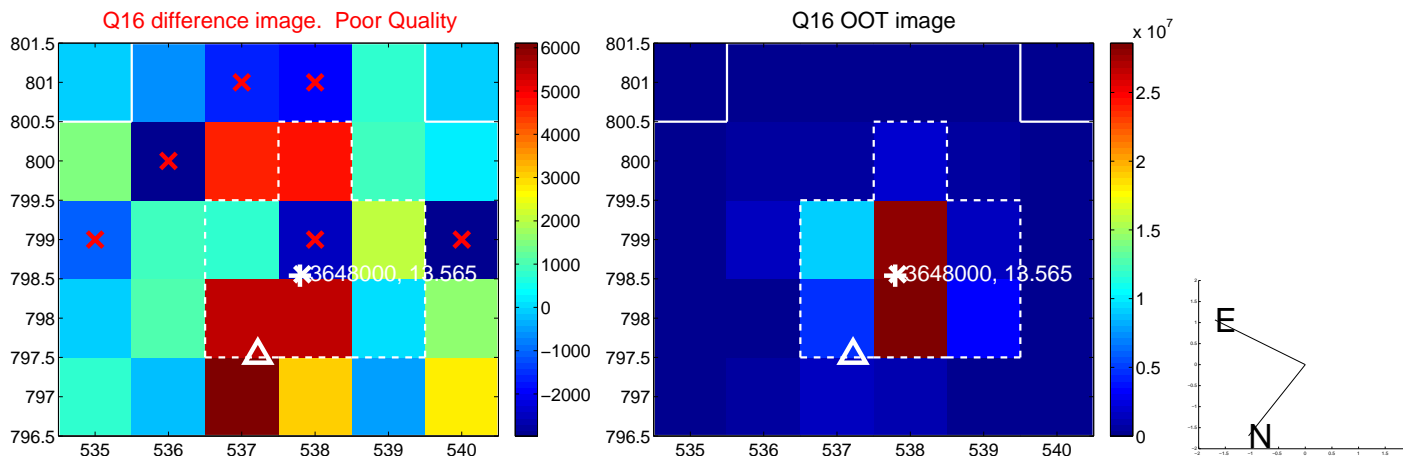
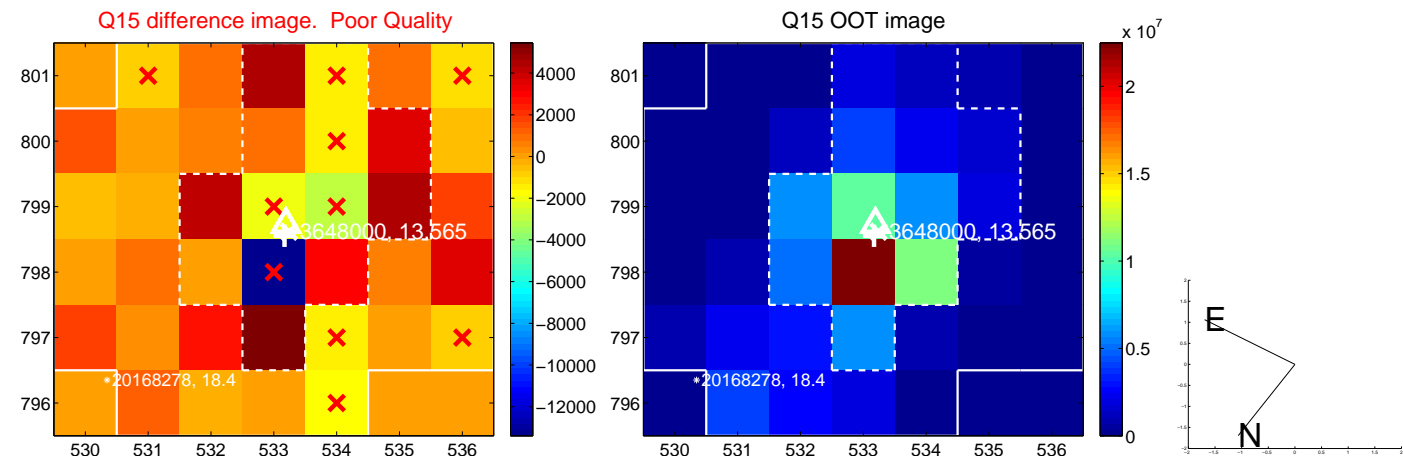
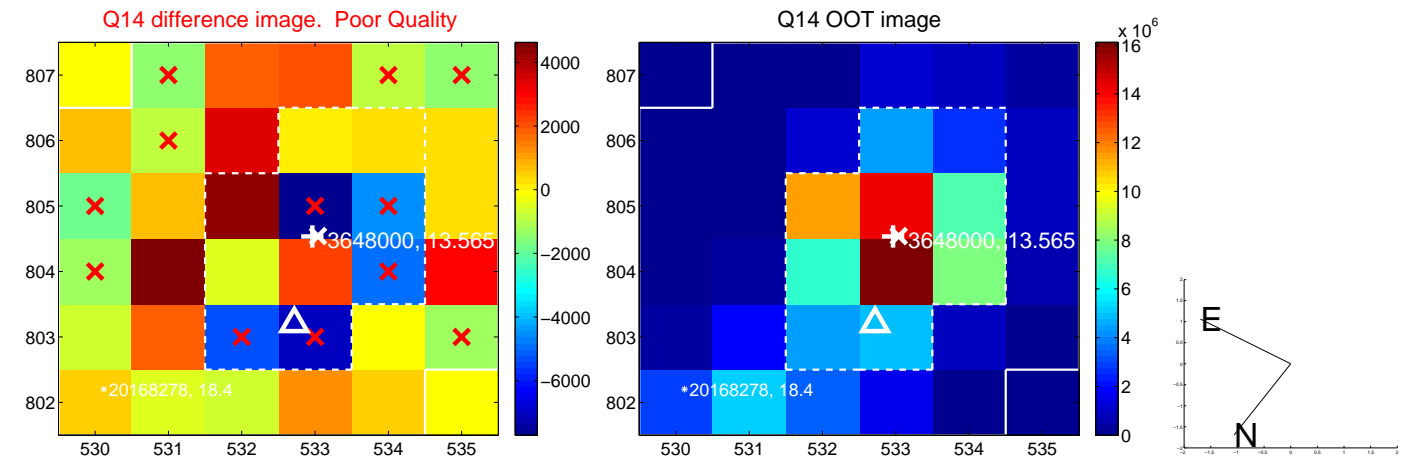
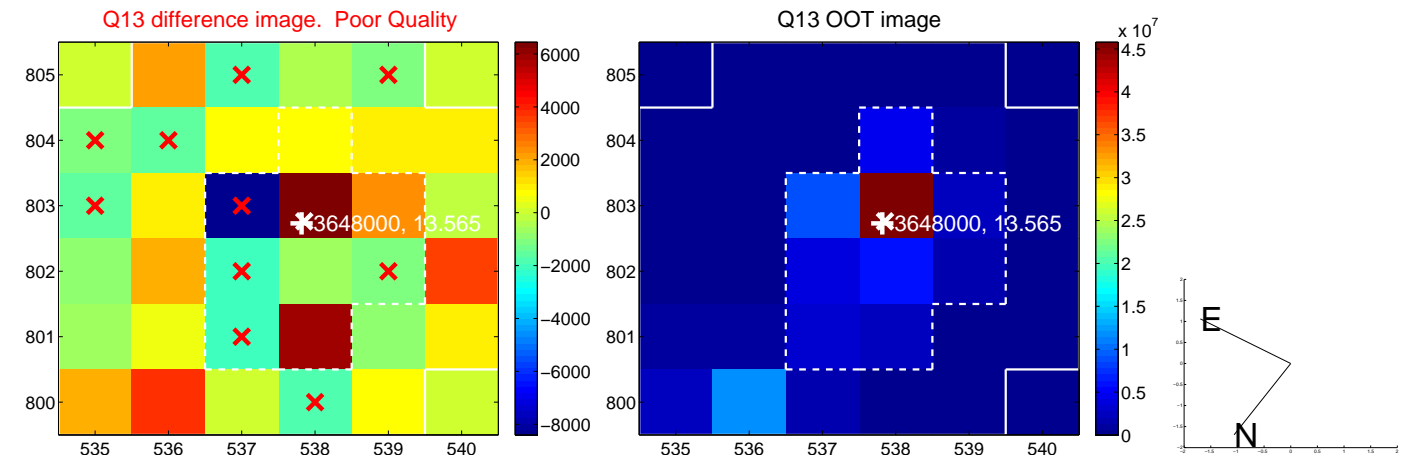
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



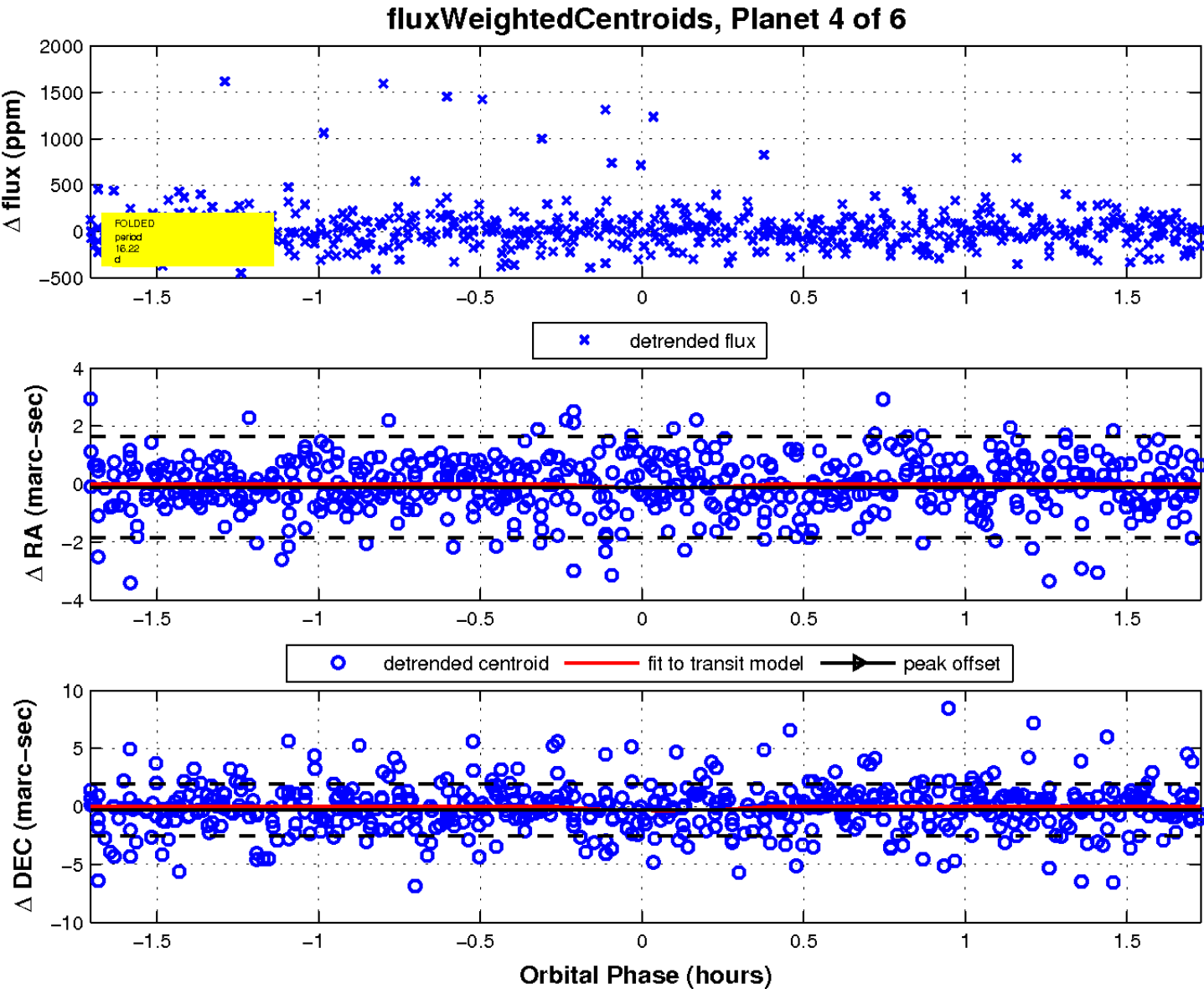
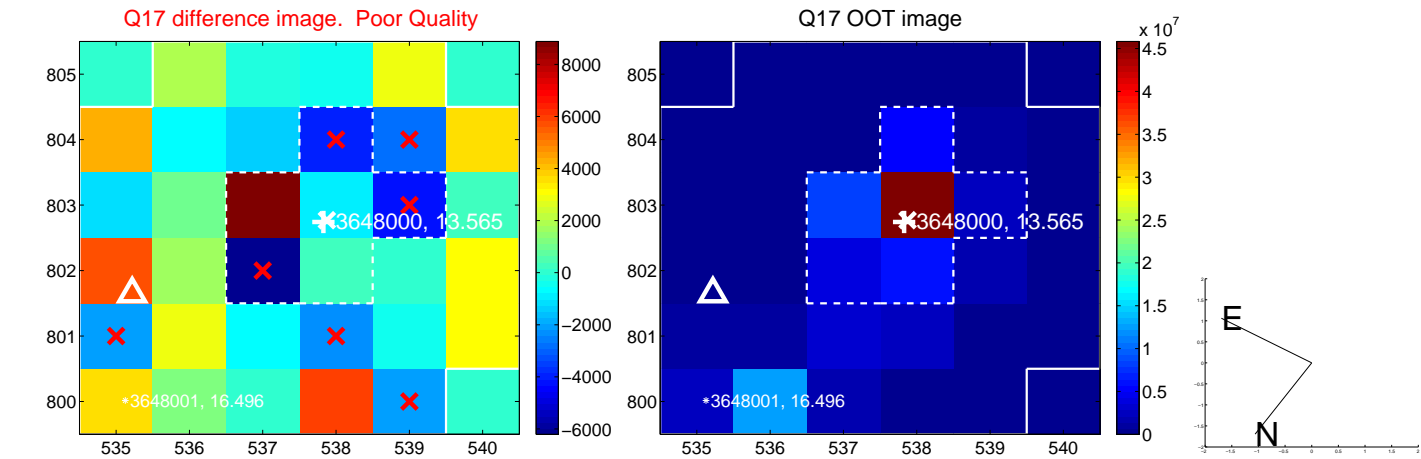
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

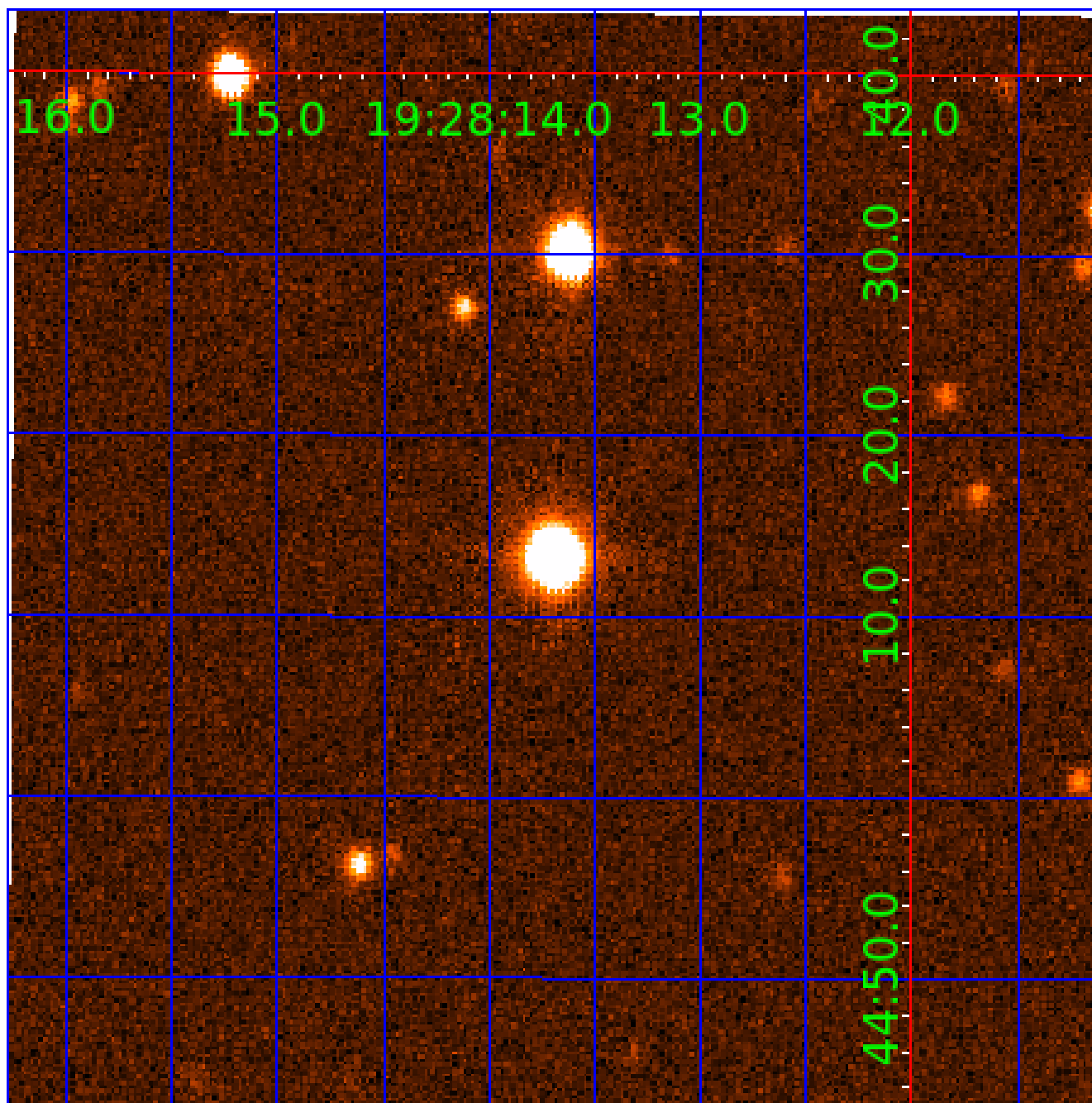


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 003648000

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
003648000-01	OBS	No	0.542462	132.038973	18.1	3.869	8.0	8.8	0.62	4321	0.28	981.28
003648000-02	OBS	No	29.738031	139.540294	2437.5	1.344	13.6	11.6	0.62	4321	3.41	4.71
003648000-03	OBS	No	14.128733	131.601366	1439.6	1.631	12.7	7.6	0.62	4321	2.63	12.71
003648000-04	OBS	No	16.221431	138.973408	1594.2	0.577	11.9	8.0	0.62	4321	2.58	10.57
003648000-06	OBS	No	23.662131	145.945372	939.3	1.500	12.0	-1.0	0.62	4321	1.84	6.39

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003648000-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_FEW_DIFFS
003648000-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—CENT_UNCERTAIN—HALO_GHOST
003648000-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_MEAS
003648000-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—CENT_FEW_DIFFS
003648000-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_NOFITS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

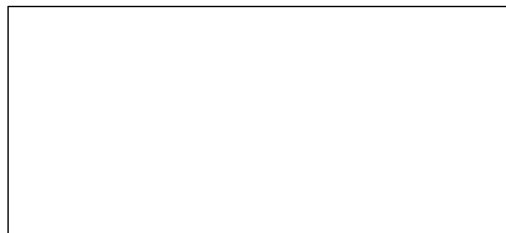
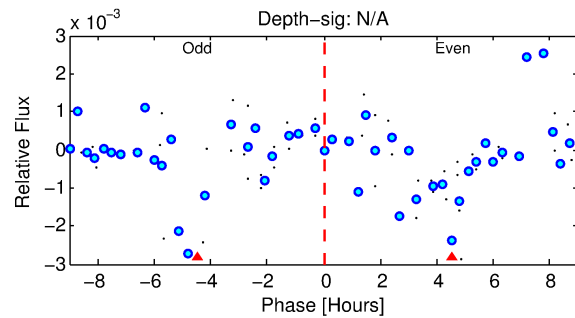
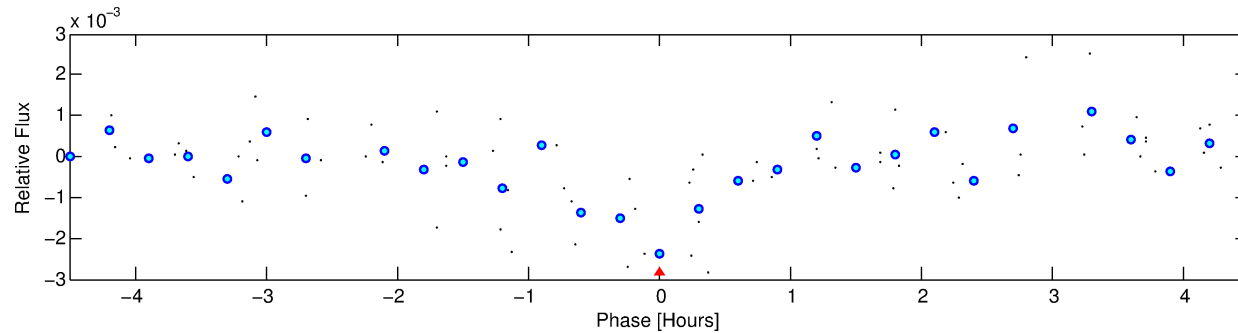
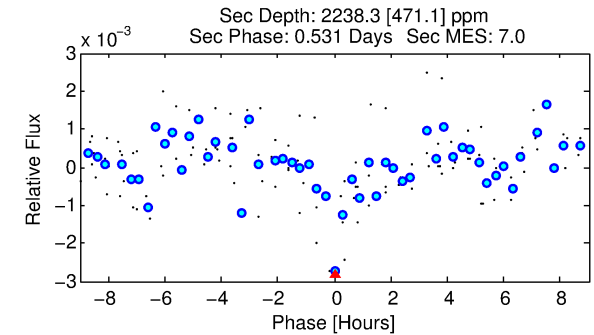
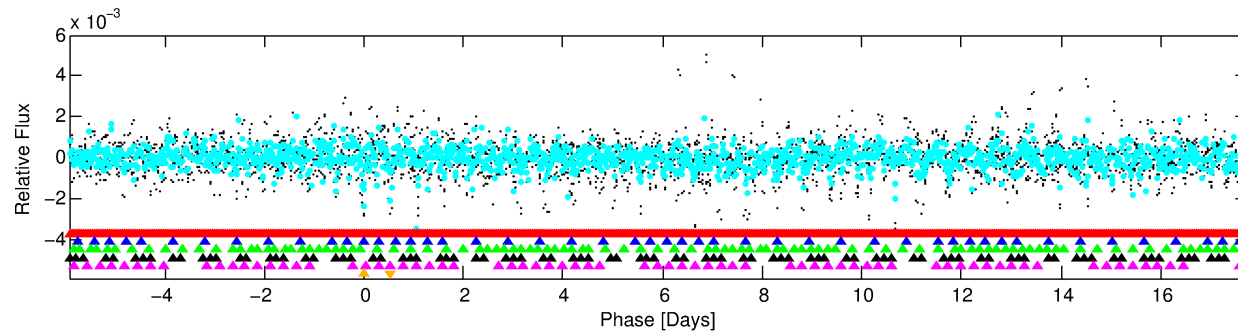
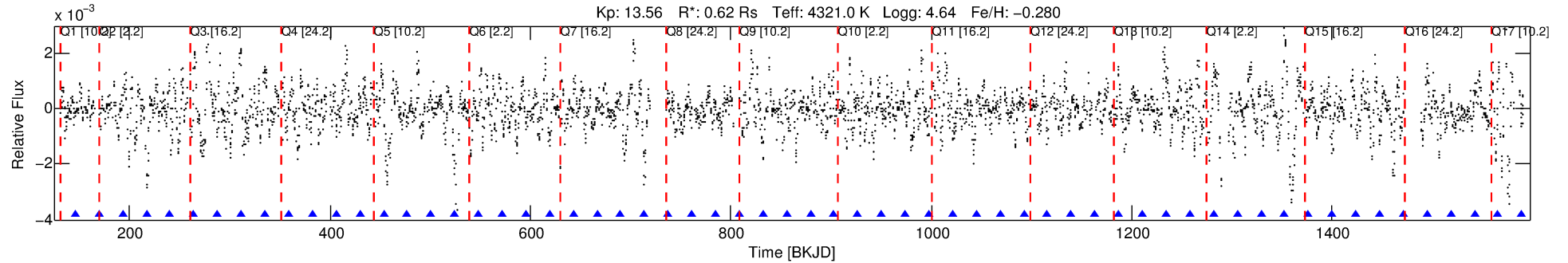
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003648000-06

No Significant Match Found

DV One-Page Summary

KIC: 3648000 Candidate: 6 of 6 Period: 23.662 d



TPS TCE Results:

Period = 23.66213 d
Epoch = 145.9454 BKJD

DV fit results are unavailable

DV Diagnostic Results:

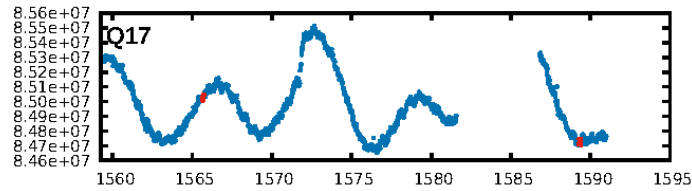
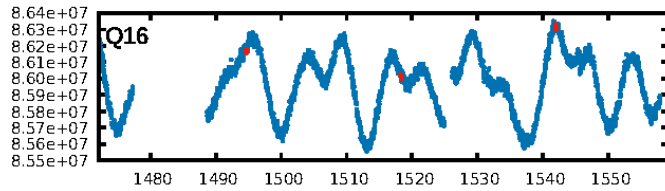
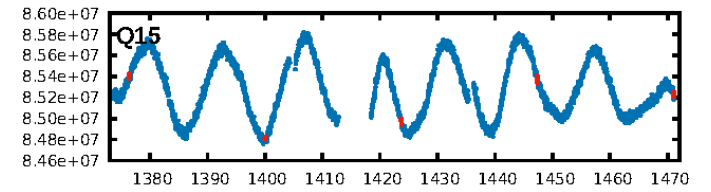
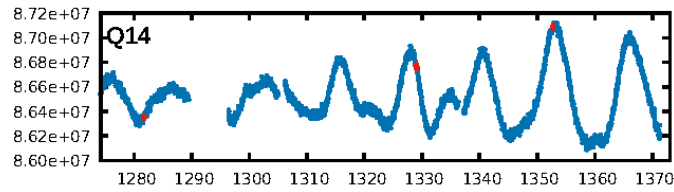
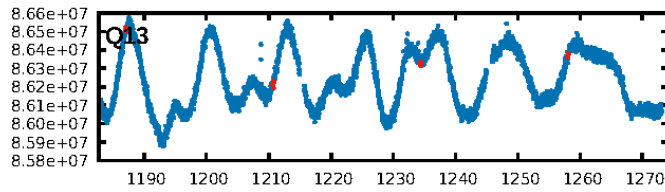
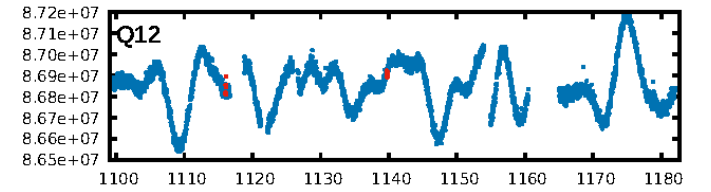
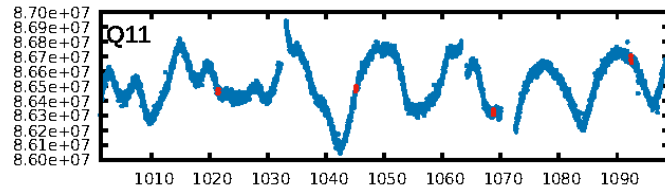
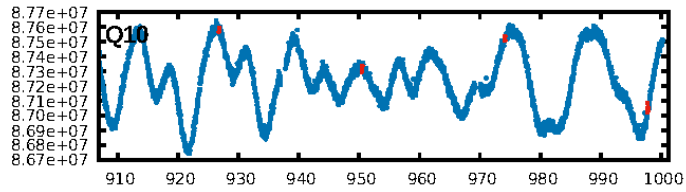
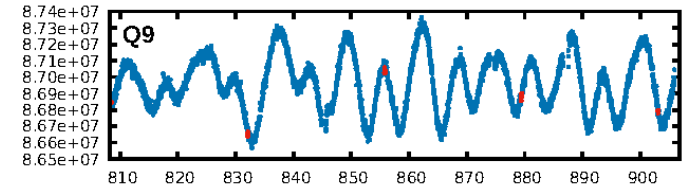
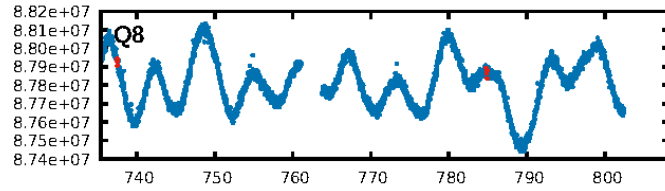
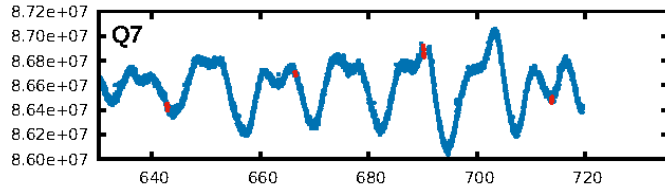
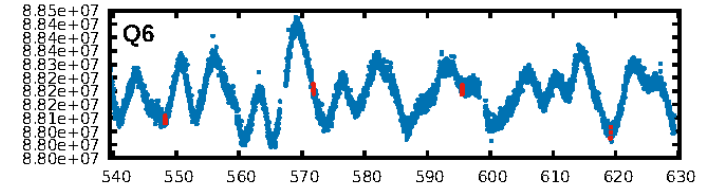
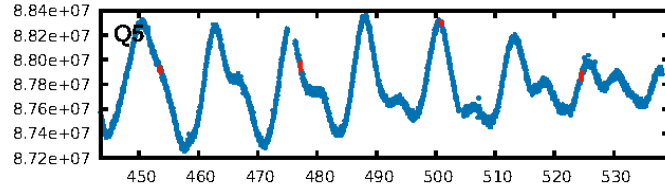
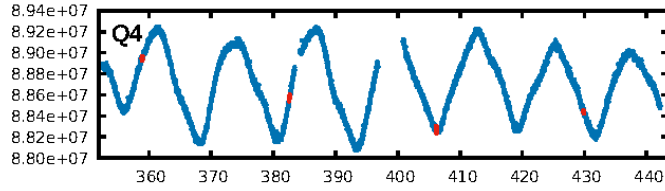
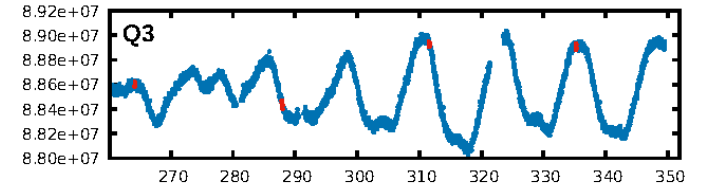
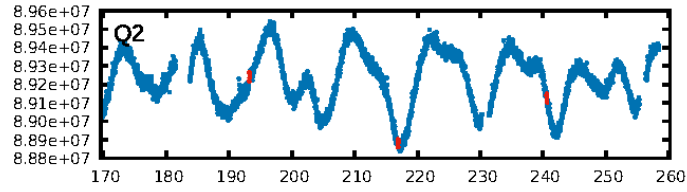
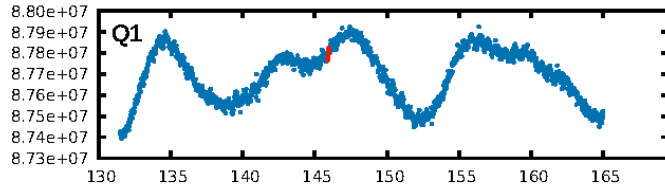
ShortPeriod-sig: 100.0% [33.45σ]
LongPeriod-sig: 100.0% [72.41σ]
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ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: N/A
GhostDiagnostic-chr: N/A

Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: N/A
KicOffset-rm: N/A
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KicOffset-st: 0/0/0/0 [0]
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DiffImageOverlap-fno: N/A

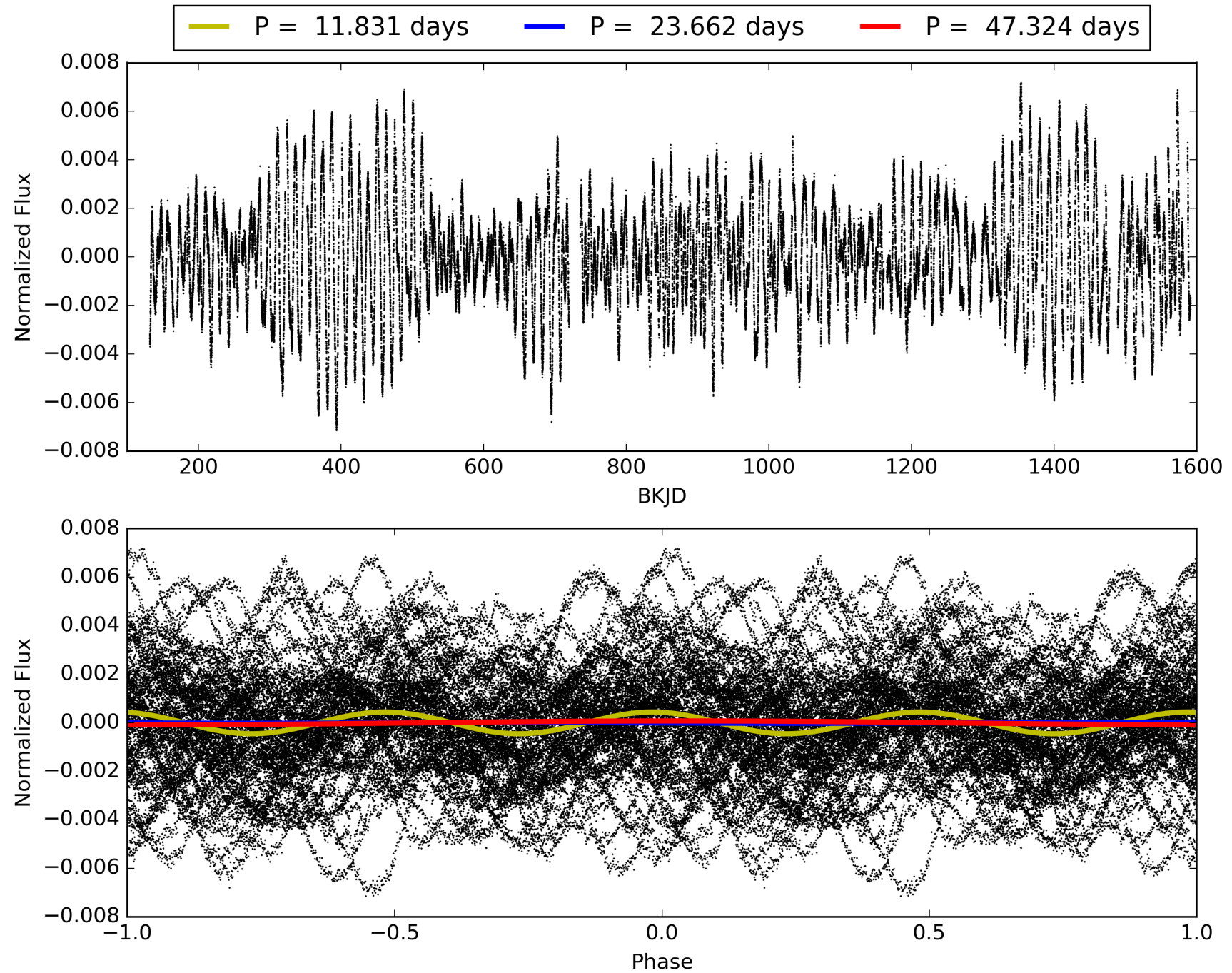
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 003648000-06, PDC Light Curves

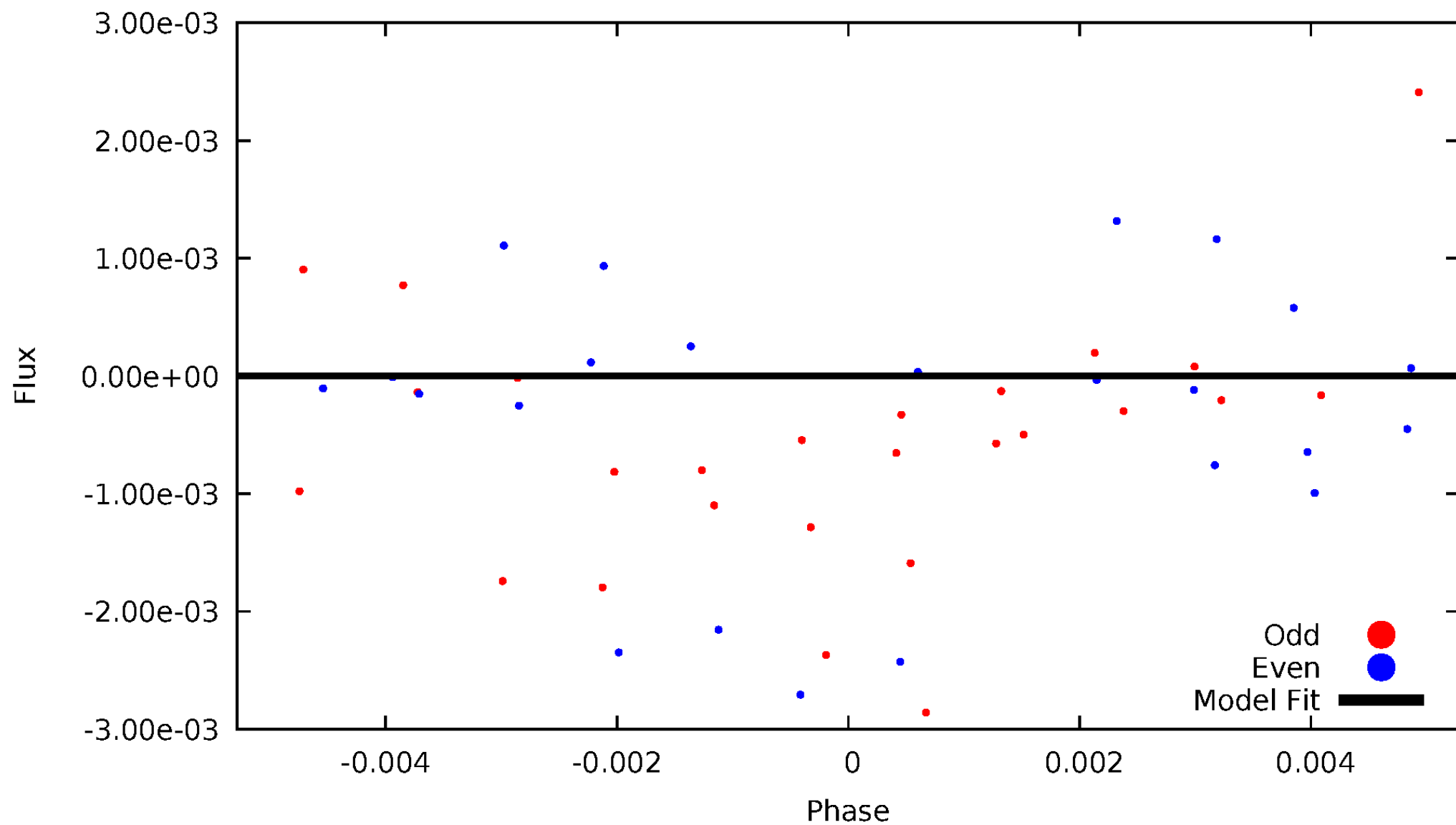


TCE 003648000-06



DV Odd/Even

TCE 003648000-06

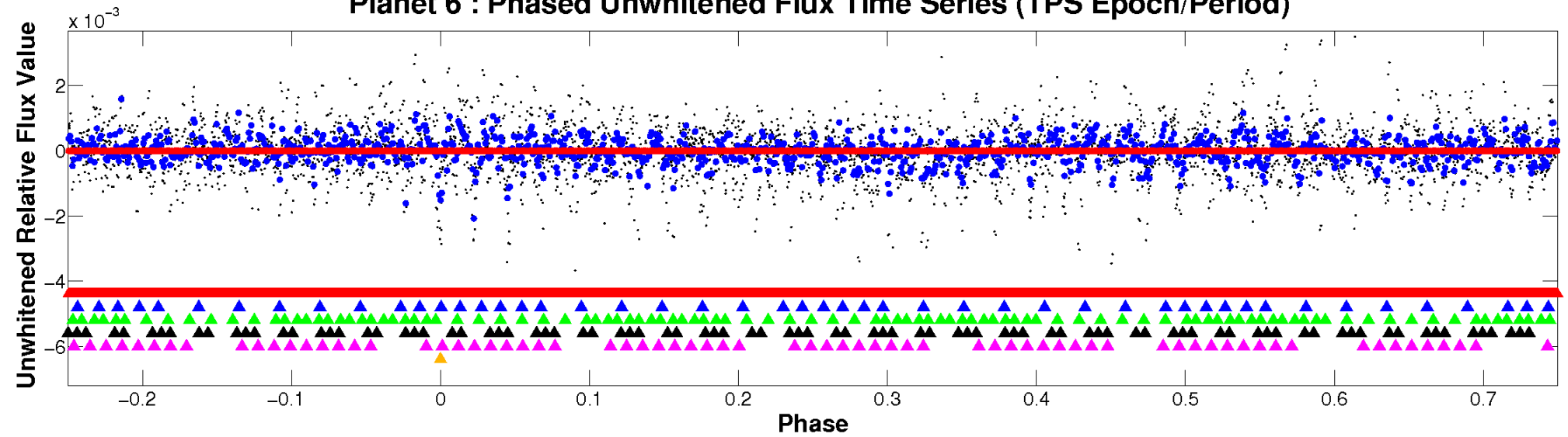


ALT Odd/Even

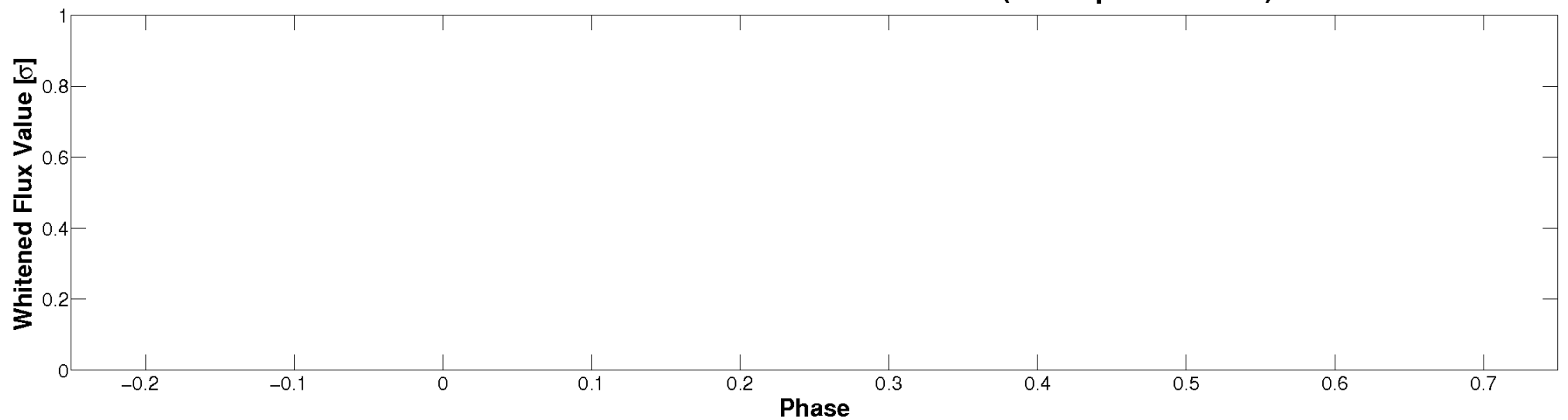
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

Planet 6 : Phased Unwhitened Flux Time Series (TPS Epoch/Period)

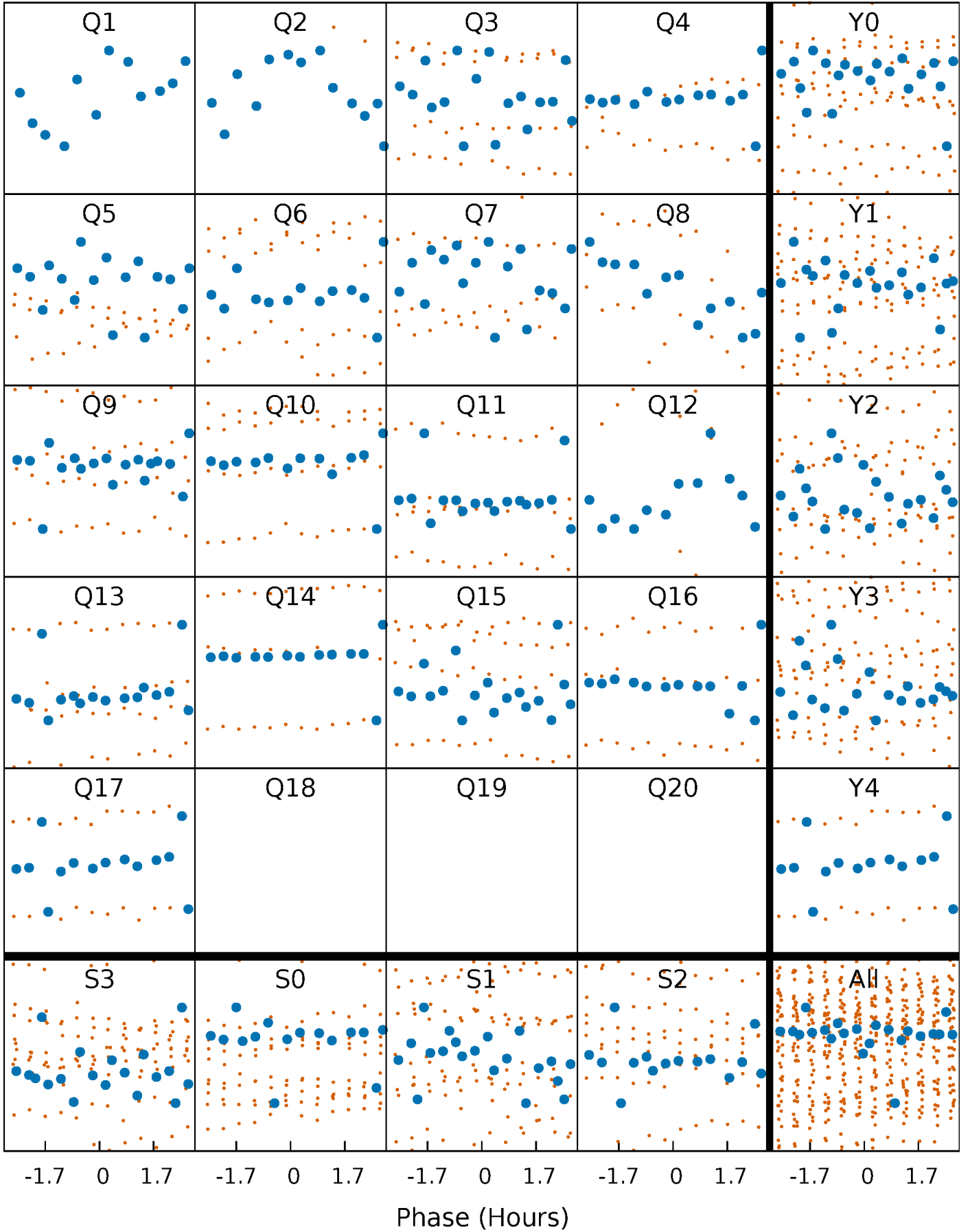


Planet 6 : Phased Whitened Flux Time Series (TPS Epoch/Period)



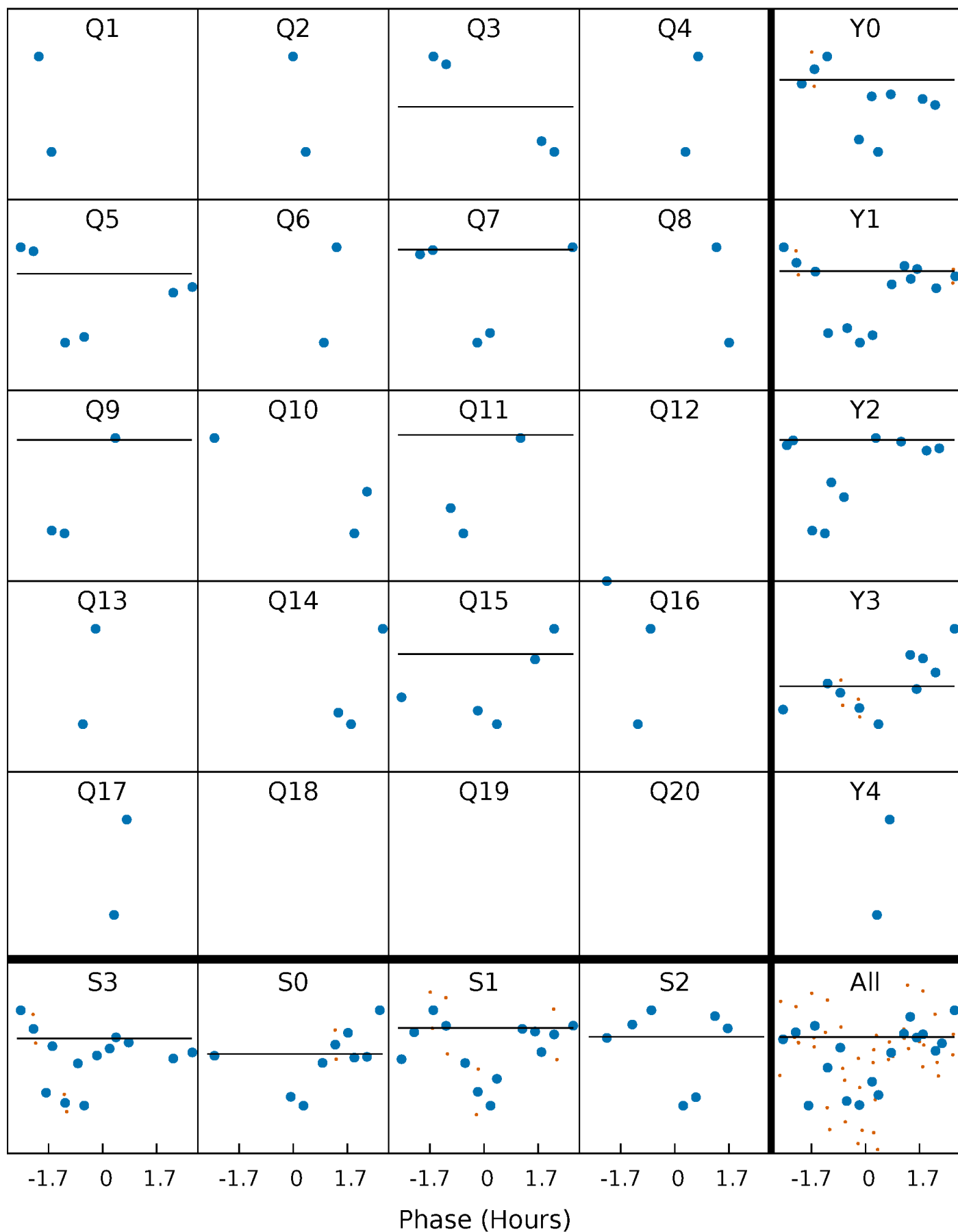
PDC Quarter-Phased Transit Curves

TCE 003648000-06 $P = 23.662131$ Days $T_0 = 145.945372$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 003648000-06 P= 23.662131 Days $T_0=145.945372$ (BKJD)

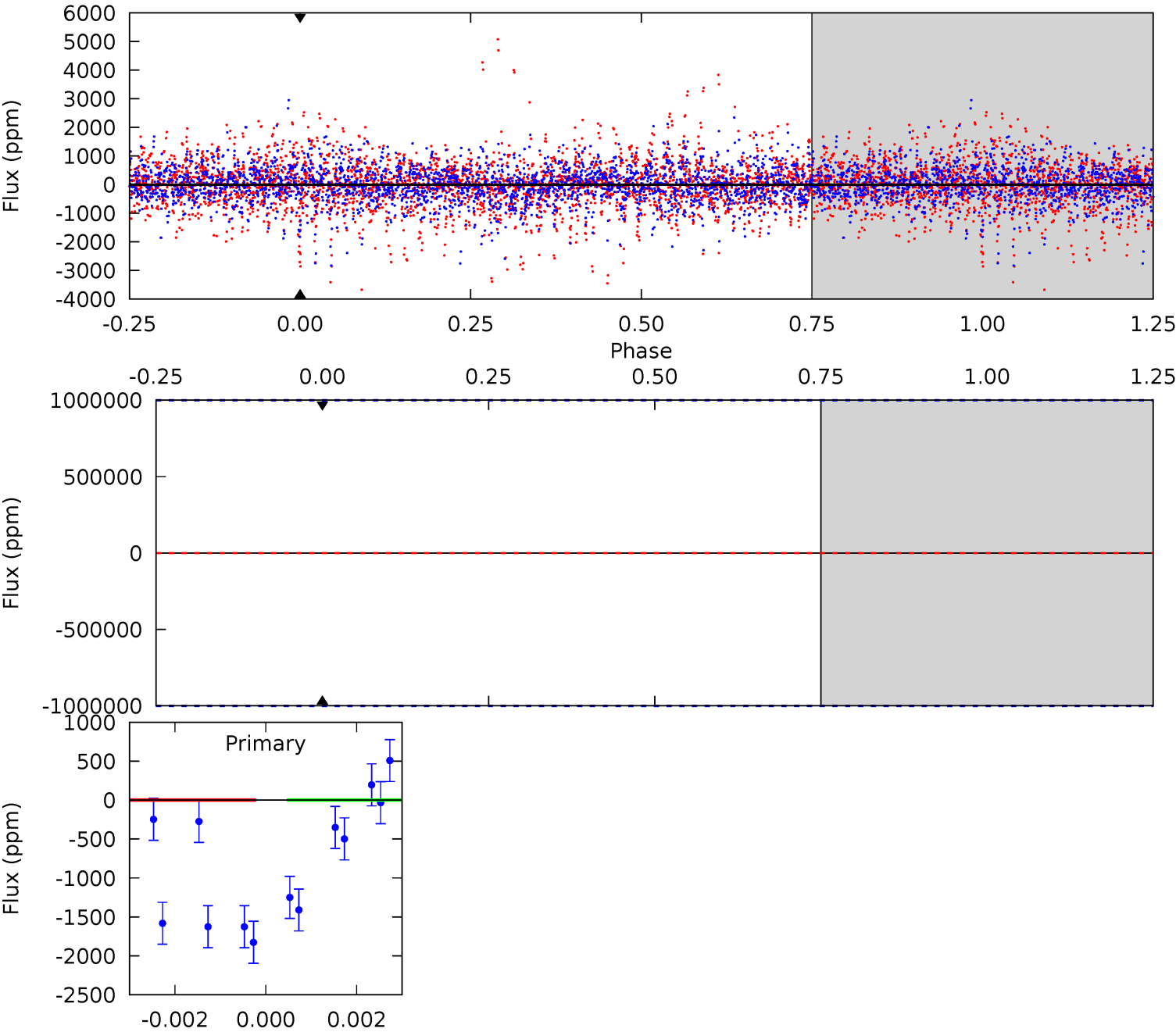


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

003648000-06, P = 23.662131 Days, E = 122.283241 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 003648000

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	4321^{+129}_{-129}	$4.638^{+0.053}_{-0.025}$	$-0.280^{+0.300}_{-0.300}$	$0.616^{+0.045}_{-0.055}$	$0.602^{+0.068}_{-0.049}$	$3.624^{+0.851}_{-0.441}$
	+3%/-3%	+1%/-1%	+107%/-107%	+7%/-9%	+11%/-8%	+23%/-12%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 003648000-06 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$5.20^{+5.02}_{-3.54}$	564^{+19}_{-20}	4212^{+6694}_{-14115}	2002^{+68507}_{-56833}
Alt.	N/A	N/A	N/A	N/A	N/A

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

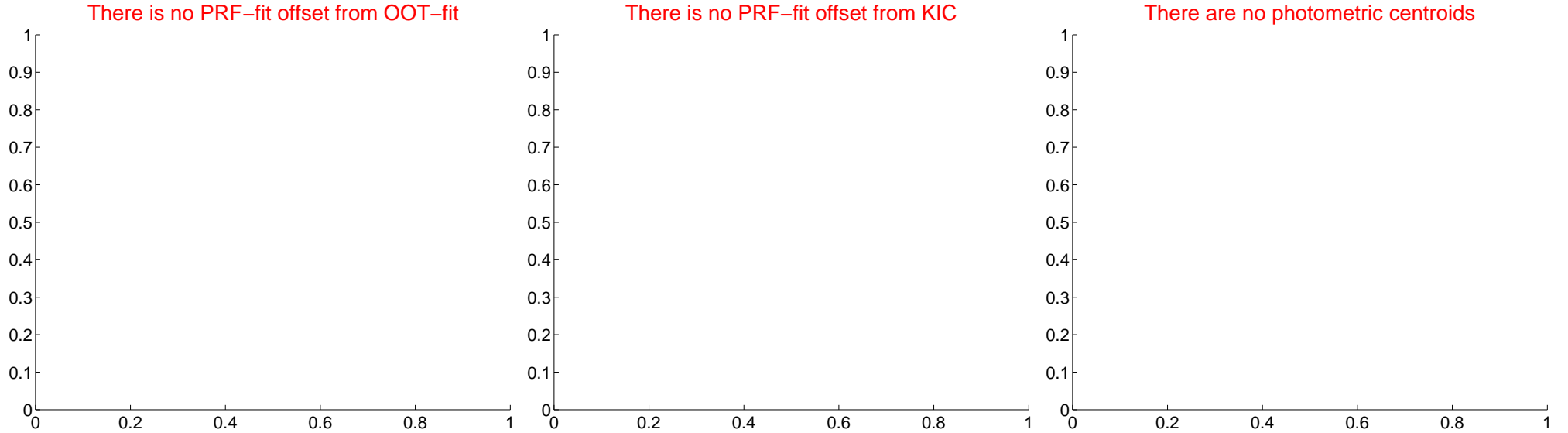
DV Centroid Data

Supplemental centroid analysis for 003648000-06. Kepler magnitude: 13.56. Transit SNR -1.00

There are 0 quarters with good PRF difference image offsets

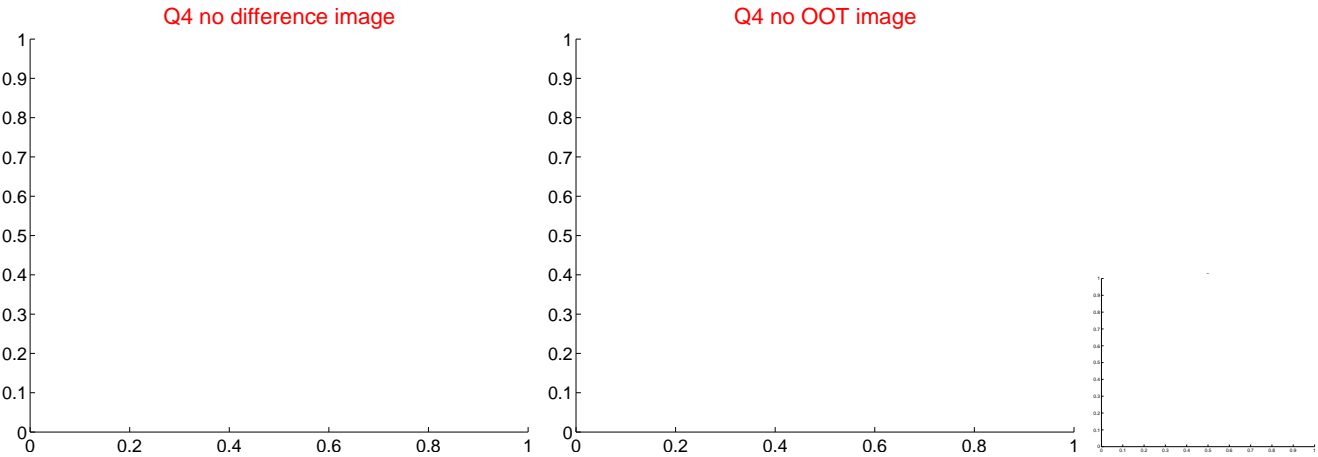
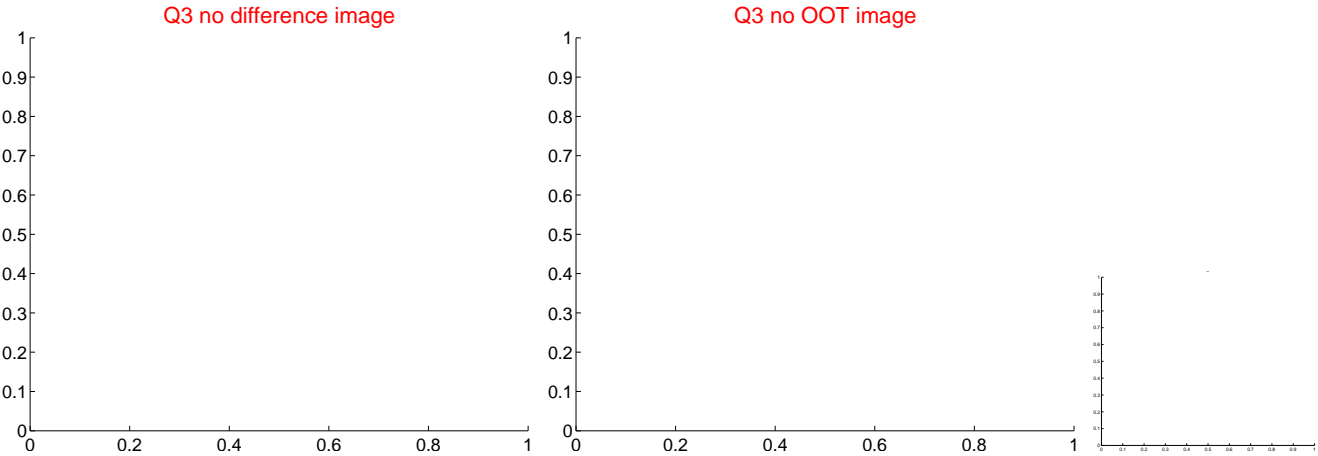
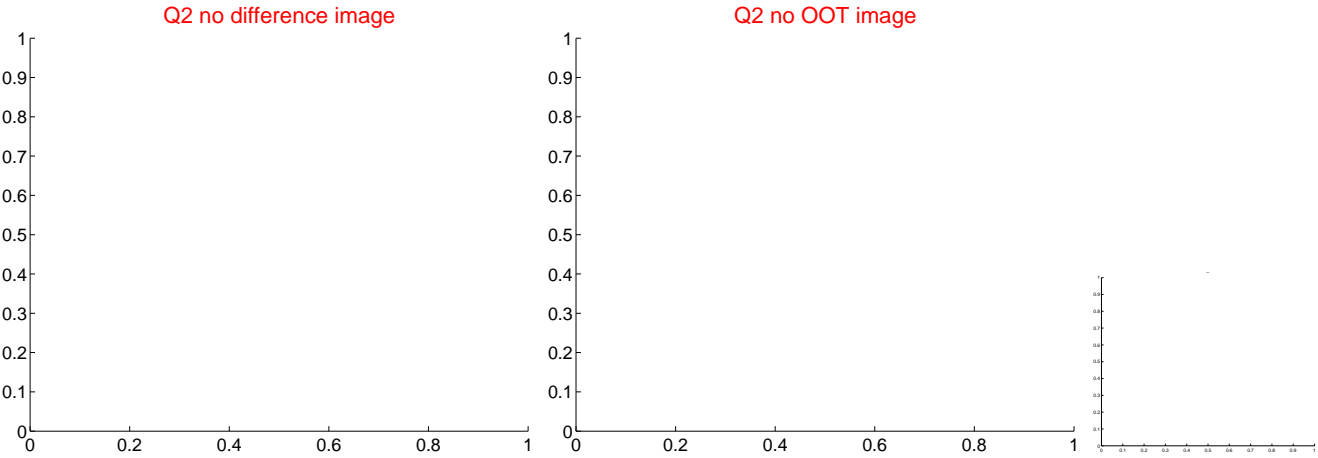
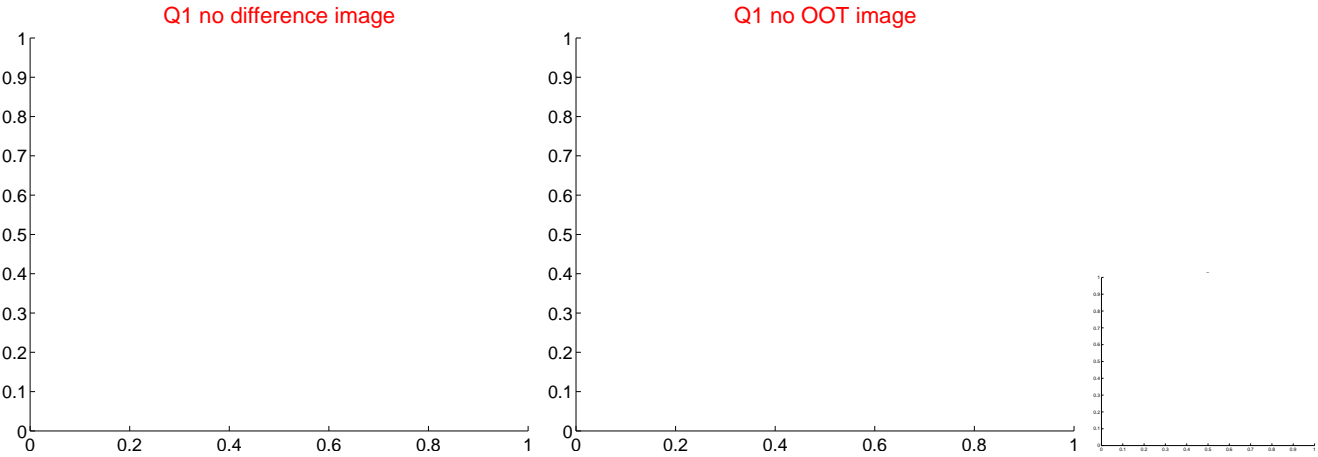
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	—	—	—	—

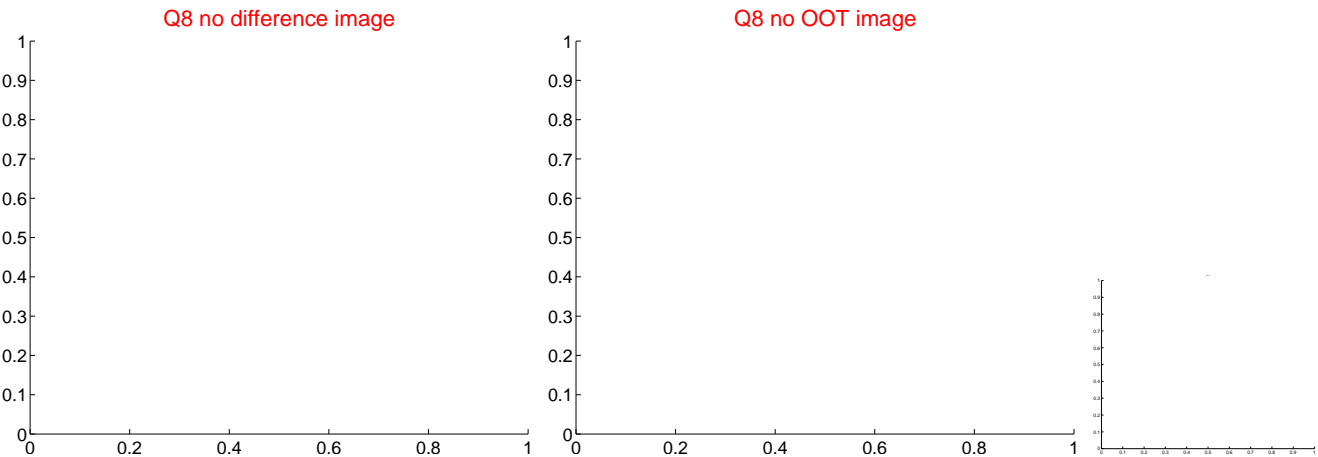
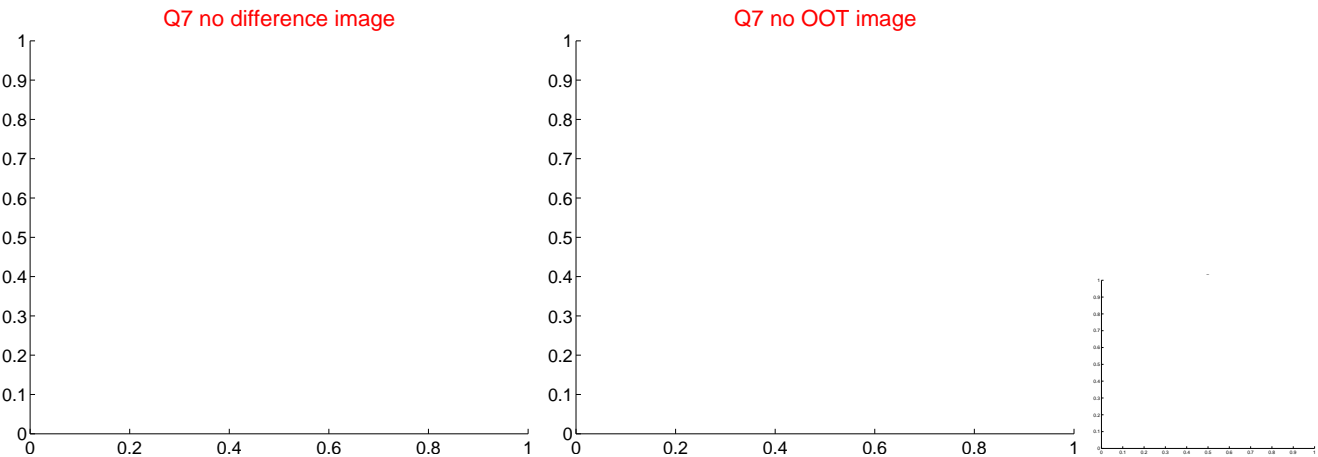
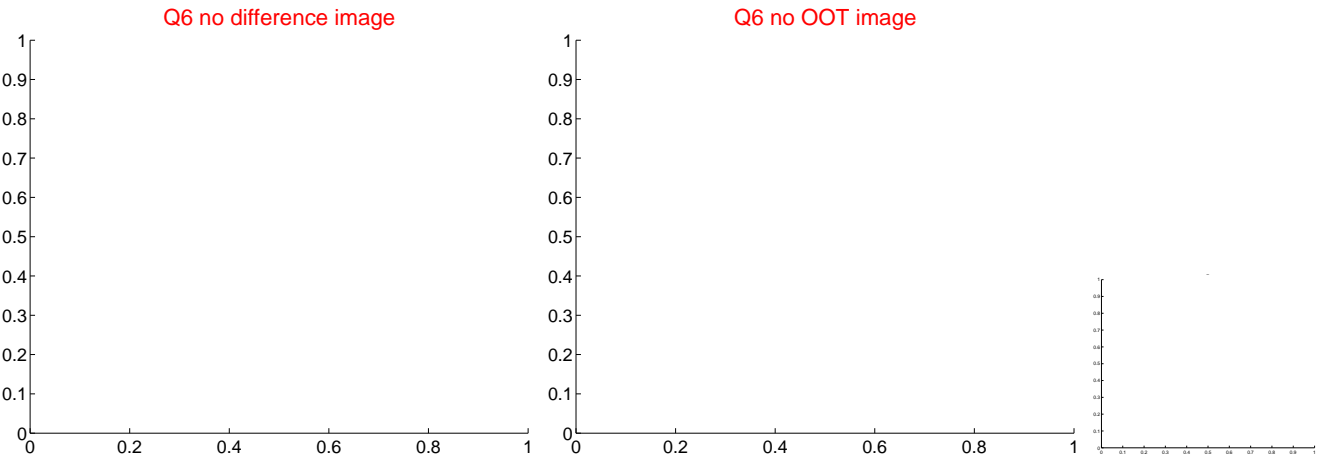
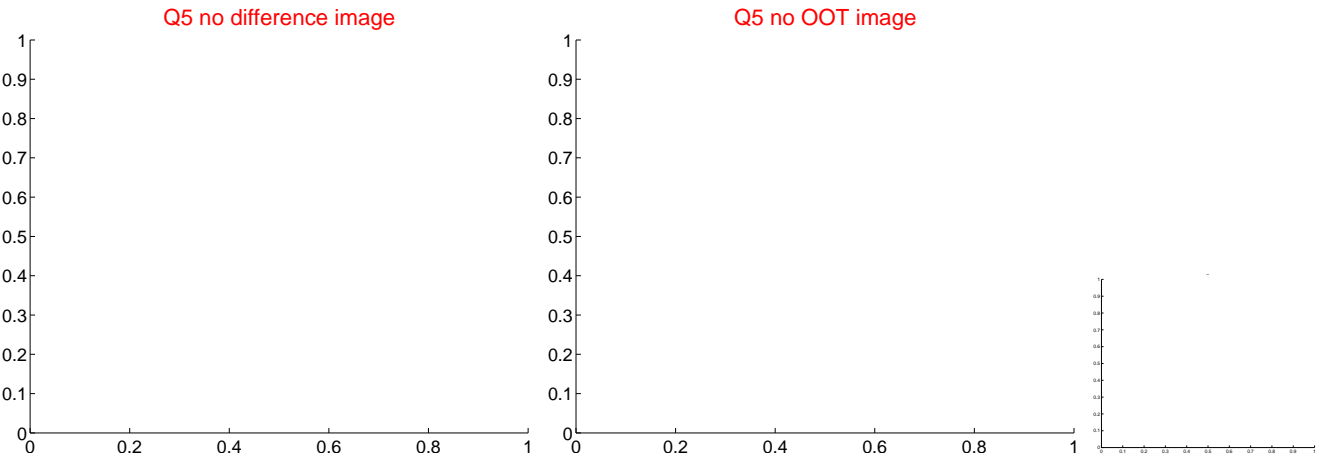


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

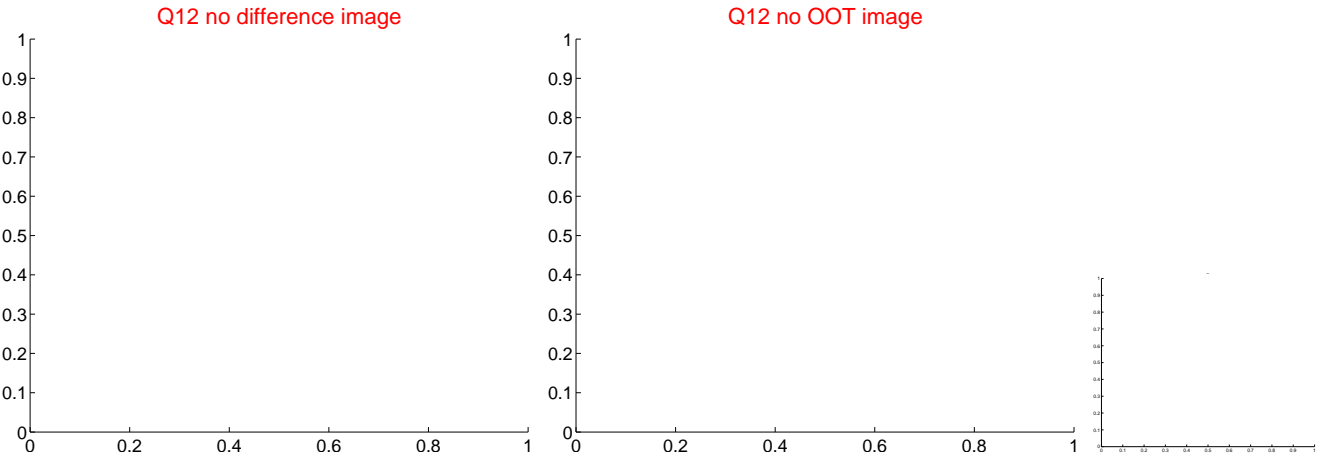
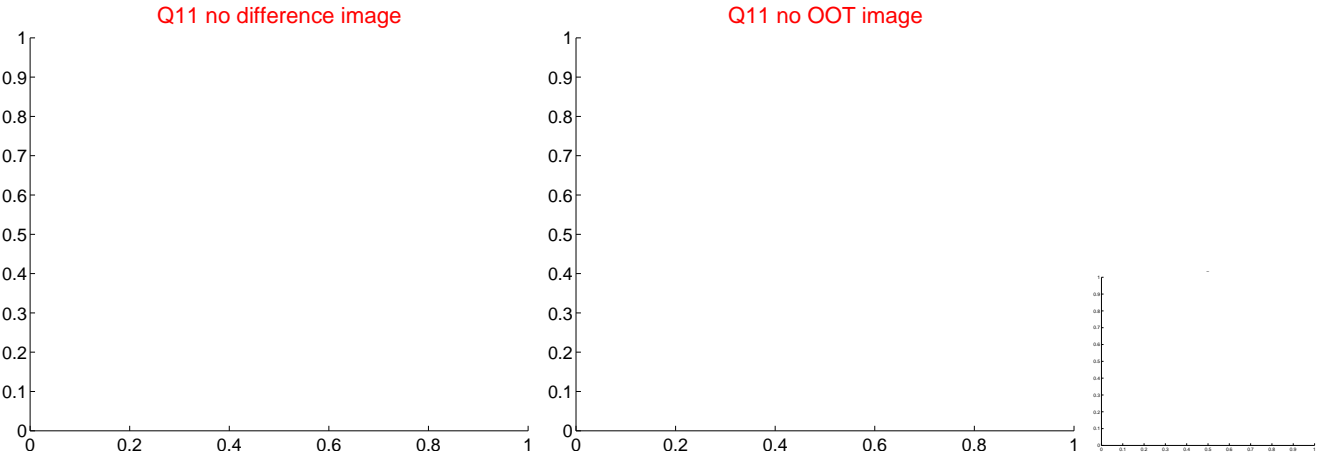
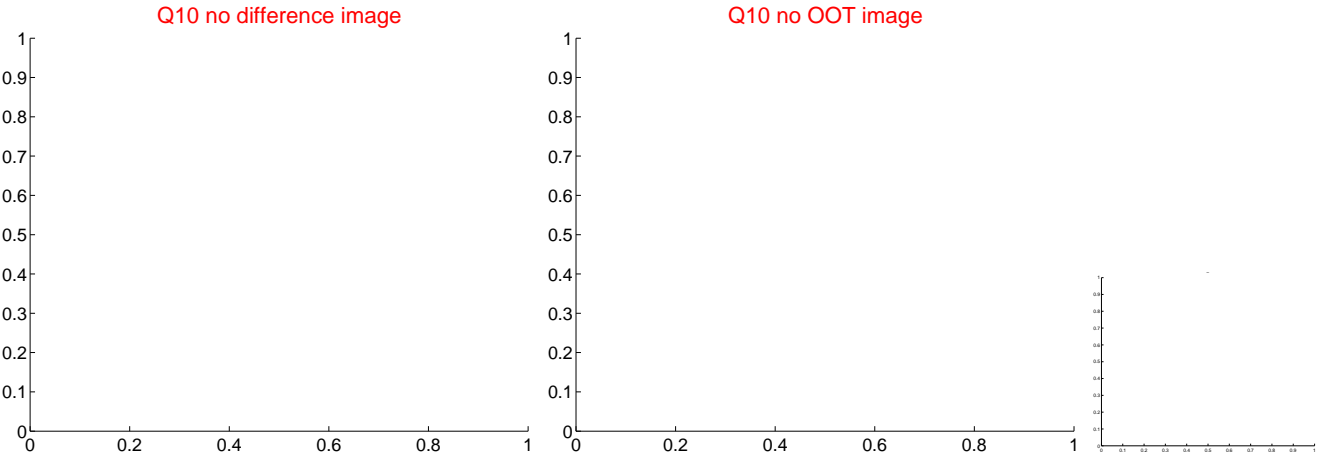
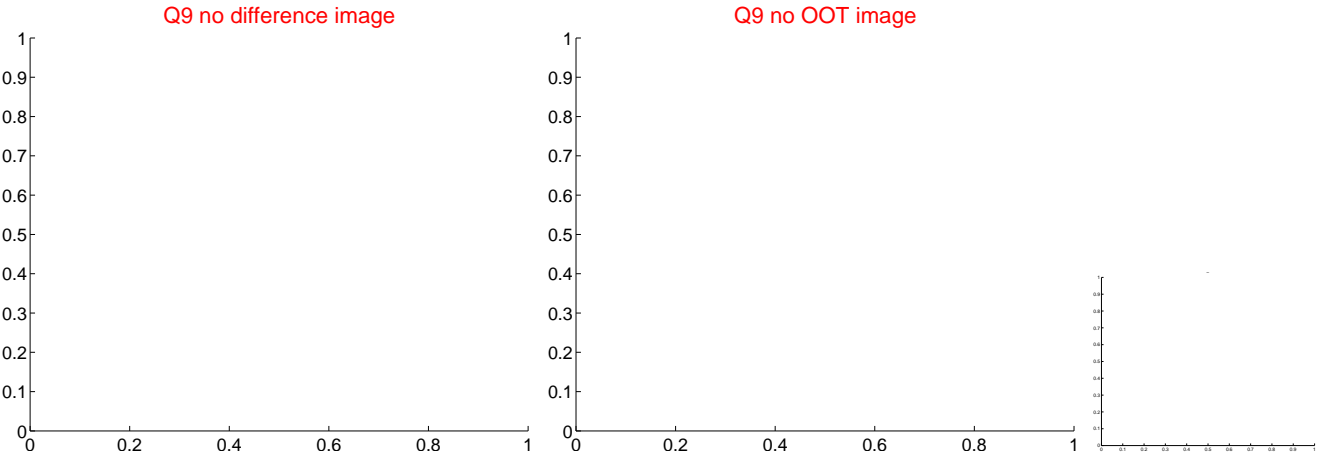
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



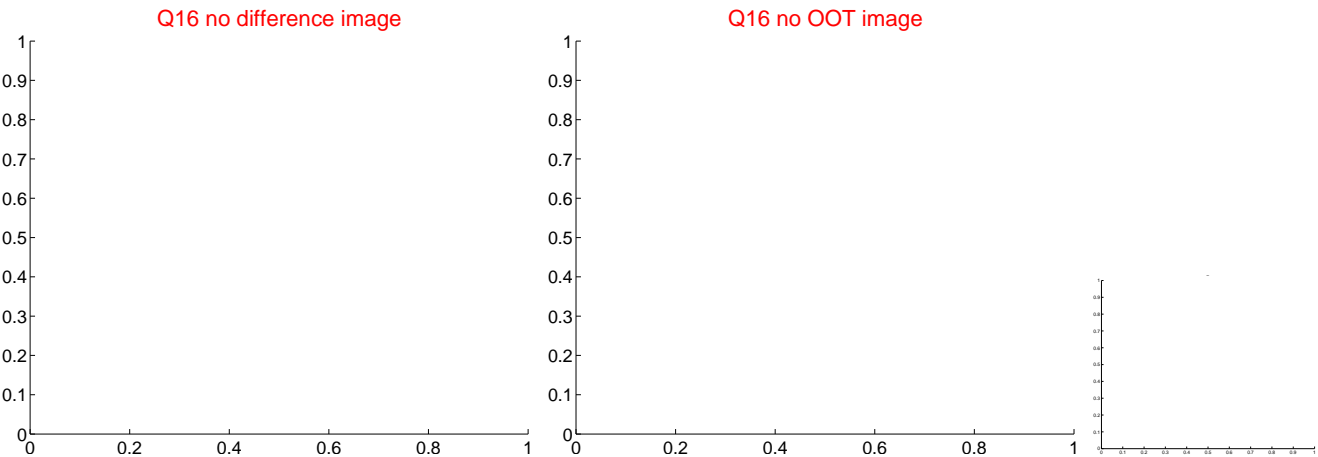
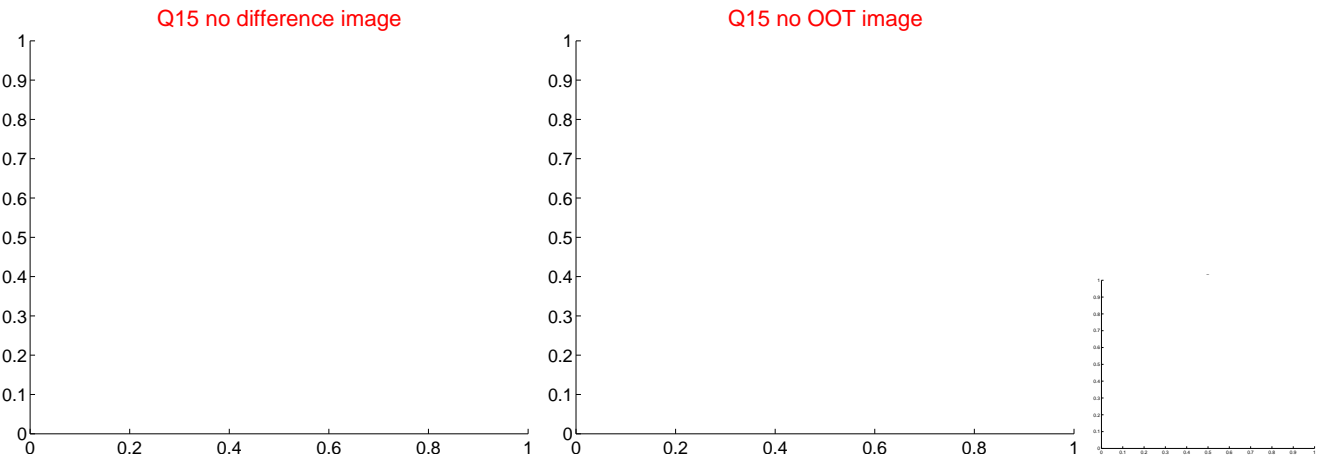
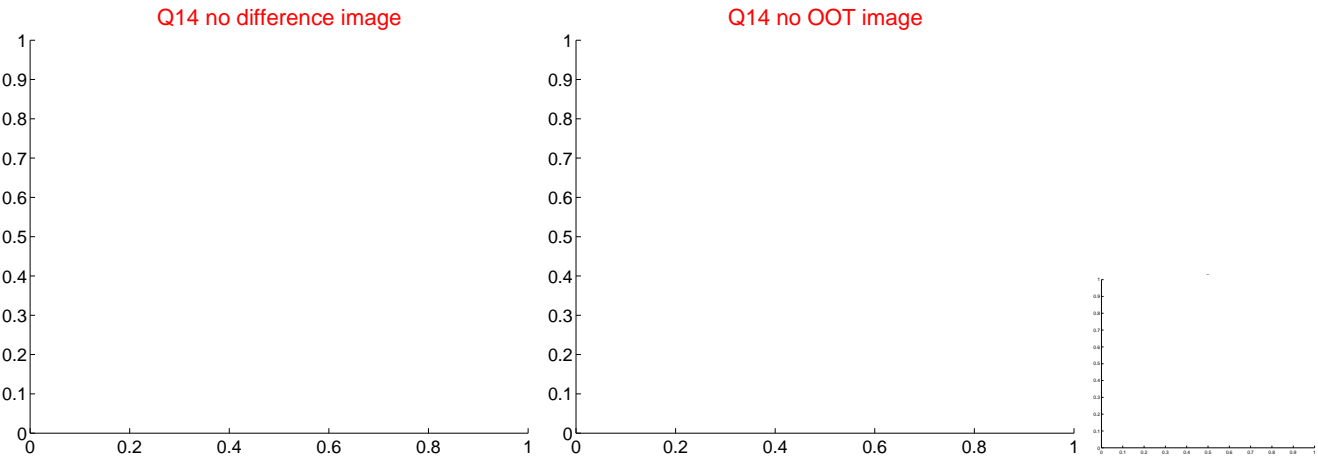
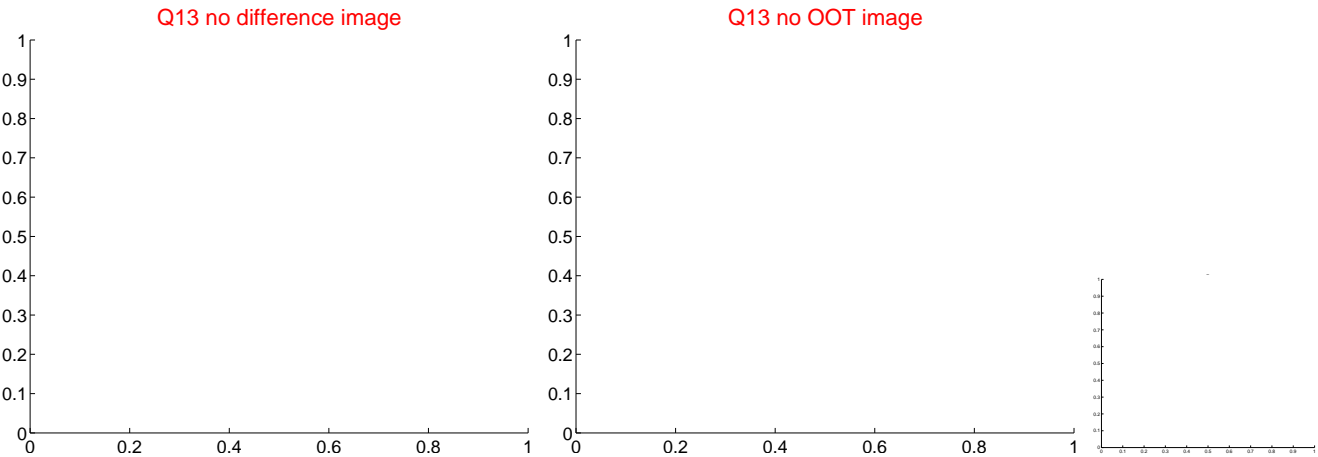
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



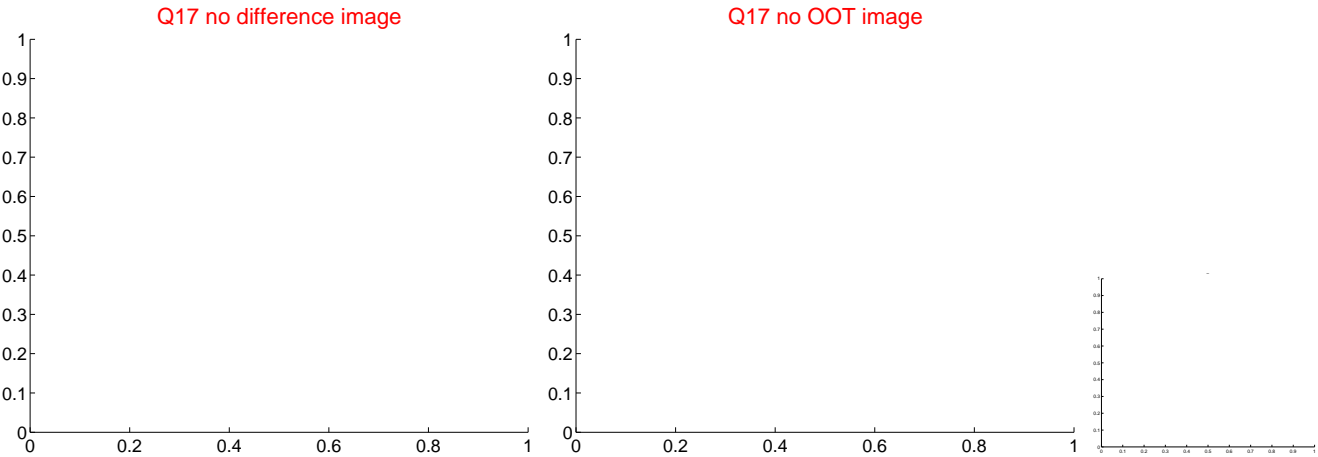
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination

